DIGITAL WATCHDOG
Everything's Digital

Real-Time 960H Recording

VMAX960H

8/16ch DVR

Future of Digital Video Recording at Hand

User's Manual ver. 1.00

Safety Information

The safety information is provided for the wellness of the equipment and for the safety of the operator.
Please review and observe all instructions and warnings in this manual.

Note : *Keep this manual handy every time you operate this equipment. Also, check with your dealer for further assistance and for the latest revision of this manual. Your dealer might provide you with a digital version of this manual. We also ask to keep the original box and packing materials in case of return and for long-term storage of the DVR unit.*

Preparations before installation

To protect your DVR from damage and to optimize performance, be sure to keep the DVR away from dust, humidity, and area with high voltage equipment such as refrigerator.

Do not install or place equipment in areas where the air vents can be obstructed, such as in tight enclosures or small utility closet. Keeping the unit in a temperature-controlled room with ample regulated power is highly recommended. Do not overload the wall outlet, as this can result in the risk of fire or electric shock.

Uninterruptible power devices such as UPS power surge protectors are recommended, and the DVR units must at least be connected with UL, CUL, or CSA approved power surge protector. Avoid direct sun light and avoid heat.

FCC Information

This equipment has been tested and found to comply with the limits of Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment under FCC rules.

UL Information

- for pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible

- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or statement in the servicing instructions.

CAUTION	RISK OF EXPLOSION IF AN INCORRECT TYPE REPLACES BATTERY. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION. THIS EQUIPMENT IS FOR INDOOR USE, AND ALL THE COMMUNICATION WIRING IS LIMITED TO INSIDE OF THE BUILDING, OR ANY SIMILAR WORD.

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Chapter 1

DVR USER MANUAL

1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

Items	Photo	Quantity
User Manual (DVR & Software) Quick Start Guide		1 Set 1 Set
CD (Manual & Software) Rubber Mount		1 Set 1 Set (4 Pieces)
12V DC Adaptor Power Cable		1 Set
IR Remote Controller		1 Set
USB Mouse		1 Set
Ground Screw		1 Sst (1piece PVS Rear / 1piece)

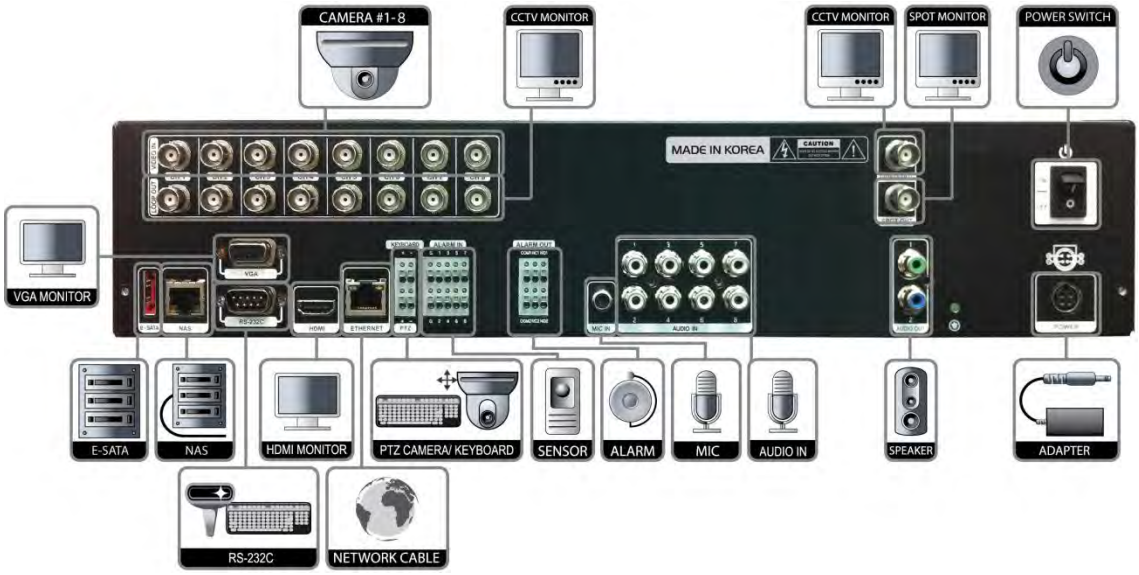
1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.

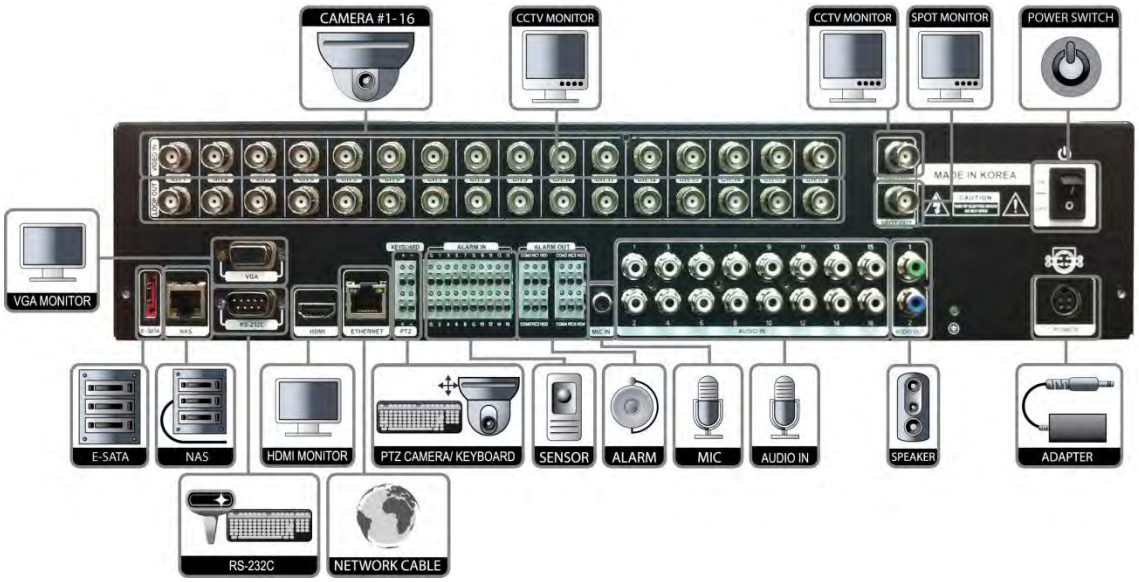
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE Install the system in a location with good ventilation to prevent overheating.

[8CH (W)428x(H)93x(D)446mm]



[16CH (W)428x(H)93x(D)446mm]



WARNING ! ※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall AC socket.

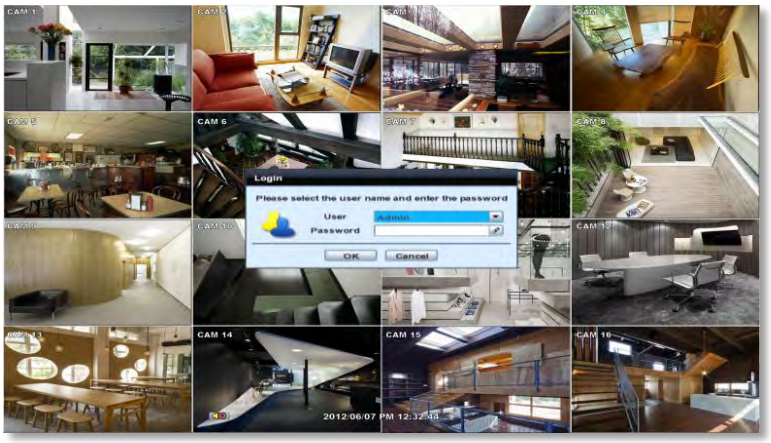
1.3 System Startup and Shutdown

1.3.1 System Startup

After connecting peripheral devices such as cameras, monitors and a mouse to the DVR, power up the DVR by connecting DC12V 9A adaptor to the power jack on the rear panel. The boot log will display as shown below. Please wait until the boot process completes.

Login with 'User Name' at the login window which will appear as shown below.

There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by 'admin' account can also login with a specific password set by 'admin' account.



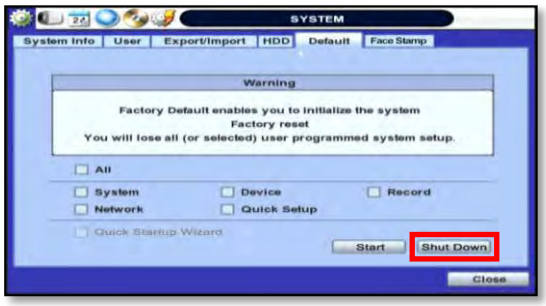
NOTE Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

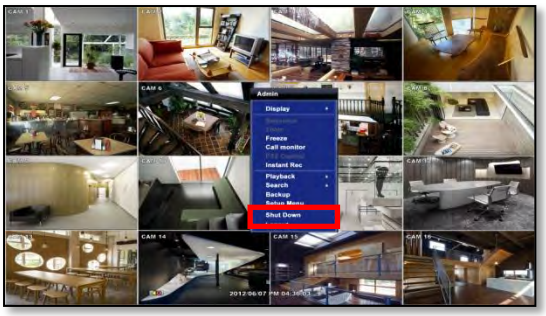
NOTE The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 System Shutdown and change password

Option 1. Click the Shutdown button and input password on pop-up to power off the DVR

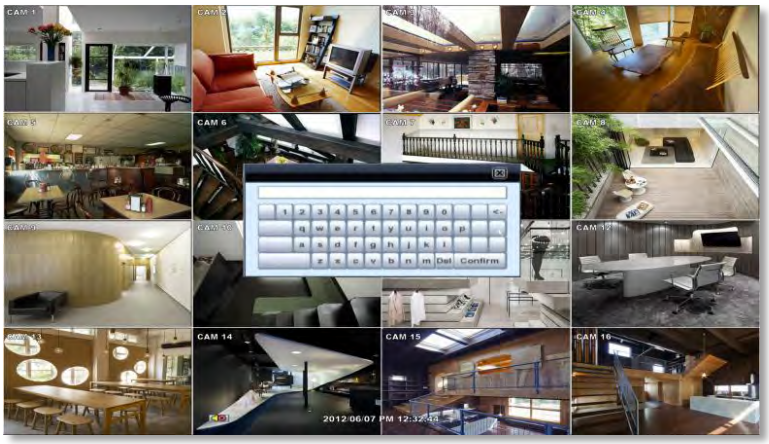
Option 2. Click the right button on the mouse and select the Shut Down to power off the DVR.





NOTE It is not recommended to disconnect the power cable abruptly from the back of the DVR because it may affect the DVR and Hard Drive.

The default password for 'admin' account is none. Therefore, just click 'Enter' button on the dial pad. If you changed the password for 'admin' account, please type in the changed password to login.



NOTE User can type in the password using the virtual keyboard or the numeric buttons on the IR remote controller.

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

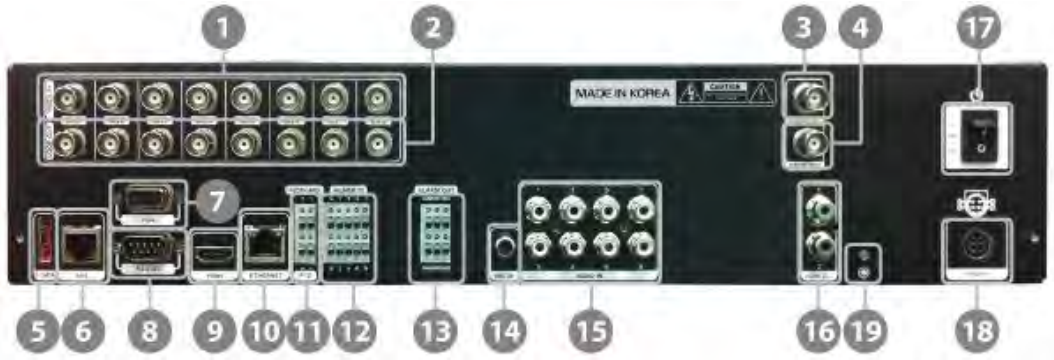
[8/16CH (W)428x(H)93x(D)446mm]

No.	Buttons	Functions
1	Menu / Exit	Menu / Exit toggled button
2	Mode	Change screen display mode
3	Freeze	Freeze display screen on/off
4	PTZ	PTZ control on/off
5	Instant Record Button	Emergency Recording
6	Search	Go to search mode
7	Instant Play	Full screen Reverse Playback
8	B-Mark	Bookmark set-up in playback, Bookmark search in Live
9	Call Monitor	Enable to select the camera channel to set it for spot output in full screen model
10	I-Backup	Instant Backup
11	◀◀	Fast rewind
12	▶	Playback, Reverse Playback togged button
13	❚❚	Pause in playback
14	■	Stop Playback
15	▶▶	Fast forward
16	↵	Enter button (execute selected menu and designated value)
17	▲ ▼ ▶ ◀	Direction button to control the menu
18	Open	Toggle to open and close DVD±RW
19	DVD±RW Bay	Bay for optional DVD±RW
20	1~16	Channel selection button from CH1 to CH16
21	Jog / Shuttle	Jog & Shuttle to manipulate playback speed
22	⇄	2 x 2.0 USB ports (mouse, backup, F/W update)
23	LED Indicators	Indicate status of Power(green) Record(red) Network(orange)

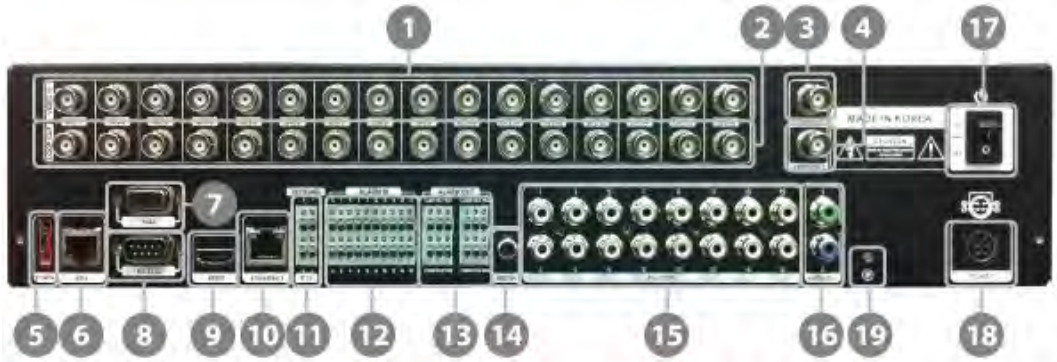
NOTE **I- Backup (Instant Backup)**
In playback mode, the user can press the "I-backup" button on the frontal keypad to configure both "start" and "End" time. Once the "Start" and "End" time is set, click the "Start" button to start the backup process.

2.2 Rear Panel

[8CH (W)428x(H)93x(D)446mm]



[16CH (W)428x(H)93x(D)446mm]



No.	I/O	Functions
1	VIDEO-IN	Camera Input from CH1 upto CH16 (Auto-detect NTSC/PAL)
2	LOOP OUT	Loops through output from CH1 upto CH16
3	VIDEO OUT	Main output in composite
4	SPOT OUT	Programmable digital spot outputu
5	e-SATA	e-SATA for external storage device
6	NAS	Network port for network attached storage (10/100)
7	VGA	Main output in D-sub 25pin
8	RS-232C	Serial port for external devices
9	HDMI	Main output in HDMI
10	Ethernet	Gigabit Network prot (10/100/1000)
11	PTZ / KEYBOARD	2 x RS-485 for PTZ cameras and keyboard controller
12	ALARM IN	Alarm Input
13	Alarm Output	Alarm output (2 relay output and 2 TTL output)
14	MIC IN	Microphone input
15	AUDIO IN	Audio input (amplifiered)
16	AUDIO OUT	Audio out 1 (green) : Main audio output (amplifiered) Audio out 2 (blue) : Audio output for is used for head set.
17	Power On / Off Switch	Power On/Off Switch
18	POWER	Main power supply connection (Default : 12 V, 9A)
19	⏚	Ground to protect DVR (Installed in rackmount kit)

NOTE Carefully check whether the specification of the peripheral devices matches the DVR's specification.

2.3 IR Remote Controller

In order to use IR Remote Controller, the ID of the IR Remote Controller must be same as the ID of the DVR.

(Default ID # for DVR and IR Remote Controller is "1".)

If you have more than two DVRs, you are able to control them individually with just one remote controller by setting up 'Remote ID'. (The Remote ID is adjustable from '1' up to '8'.)

The function buttons of the IR Remote Controller are as below.

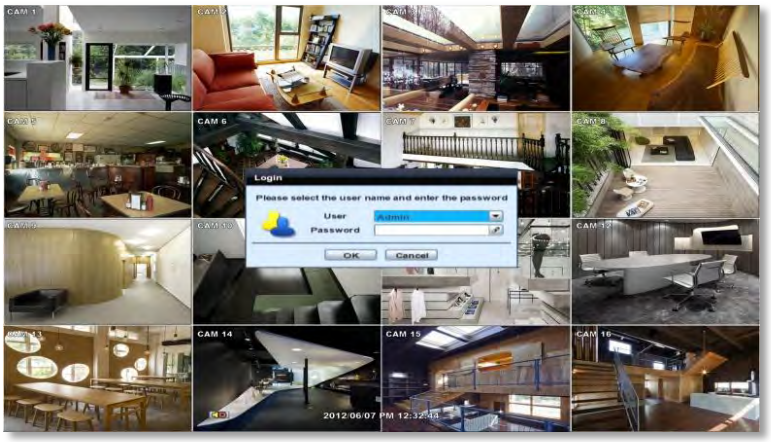
No.	Functions
1	Instant (Emergency) Recording Button
2	Numeric Button
3	Auto-Sequence Button on Live Display Mode
4	Freeze Button
5	Call Monitor Button
6	Channel Selection Button
7	Instant Playback Button
8	Search Button
9	OK (Select) Button
10	Audio Mute Button
11	Playback Button on Search Mode (Fast Backward/Playback/Stop/Fast Forward)
12	Exit Button
13	Display Mode Button
14	Zoom Button
15	Bookmark Button
16	Zoom In & Out Button
17	Backup Button
18	PTZ Button
19	Direction Button (Up/Down/Right/Left)
20	Menu Button
21	ID Select Button (DVR1 ~ DVR8)

3 OPERATION

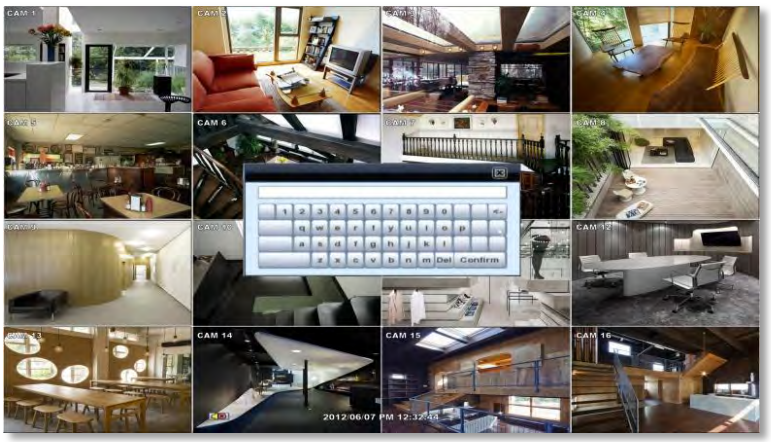
3.1 User Log-in

Check the power connection. The system can be used after power-on.

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.



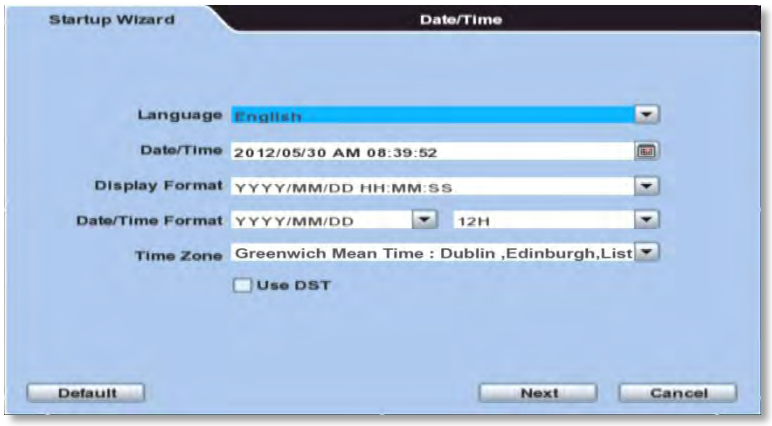
Enter the <Admin> or <User> password which had been set by using the virtual keyboard.

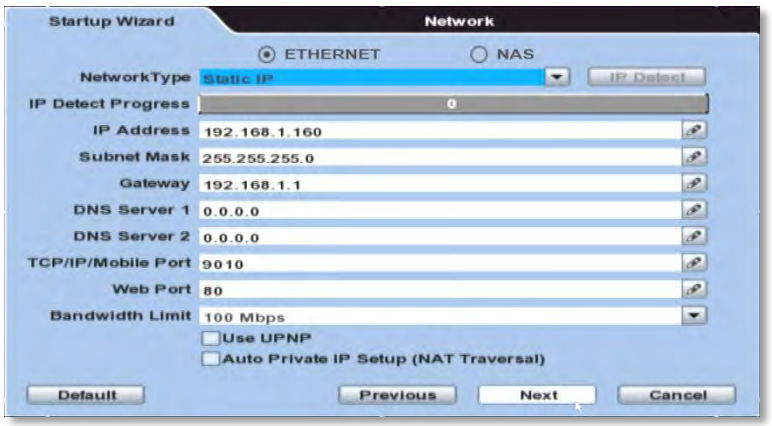


NOTE 1) <LOGIN> window will be permanently displayed in monitor as above picture until user logs in with the right ID and password.
2) If it is set as Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

3.2 Quick Startup Wizard

Quick Startup Wizard is specially designed to make it much easier for the major DVR settings such as Time/Date setup, Record setup, Network setup and Quick setup. When the DVR boots up, the Quick Startup Wizard operates automatically. It can be disabled by setting in the main menu.





3.3 Live Display Mode

3.3.1 Full HD(1080p) Live Display

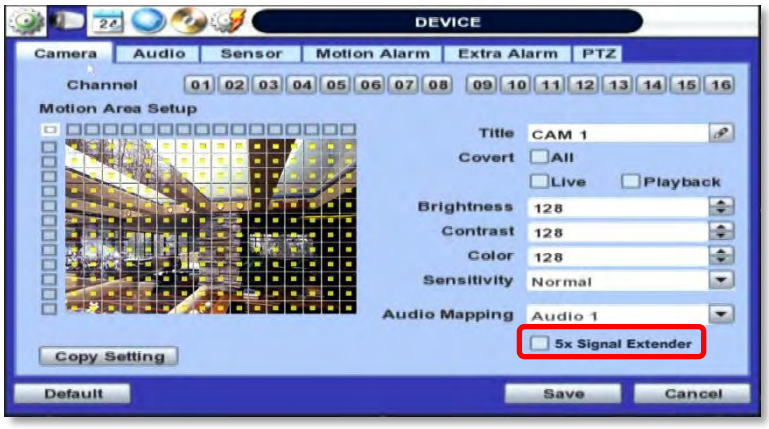
Full HD Live Display can is available in live quad (4) mode by using its HDMI and VGA output.

NOTE In playback mode, the maximum resolution is 960x480 / 960x576(NTSC/PAL).

<Full HD Live Display>

3.3.2 5x Signal Extender (Built-in 4CH)

The adjustable 4CH built-in Image Enhancer enables to extend the distance coverage upto 900m (2950ft) between the cameras and DVR. tO enable, go to 'Camera Setup' in the DVR's main menu and chekk the '5x Signal Extender' check box. This feature is available for channels 1~4 only.



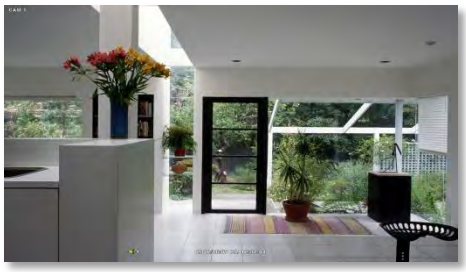
3.3.3 Channel Selection

Channel selction can be done by following one of the steps below:

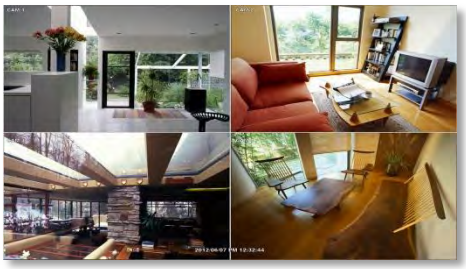
1. CH1~CH16 buttons loicatd on the top of the front panel.
2. 1~16 buttons on the IR Remote Control.

The display mode can be changed by pressing the 'MODE' button on the DVR's front panel.

The live images can be displayed in real-time in 1, 4, 9, 16 screen splits. Whenever the left/right arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.



[1 Ch]



[4 Ch]

[9 Ch]

[16 Ch]

To select channel by mouse, click target channel single time to display in full screen. To return to previous display mode, click the screen again.

To view the pop-up menu, right click anywhere on the display screen.

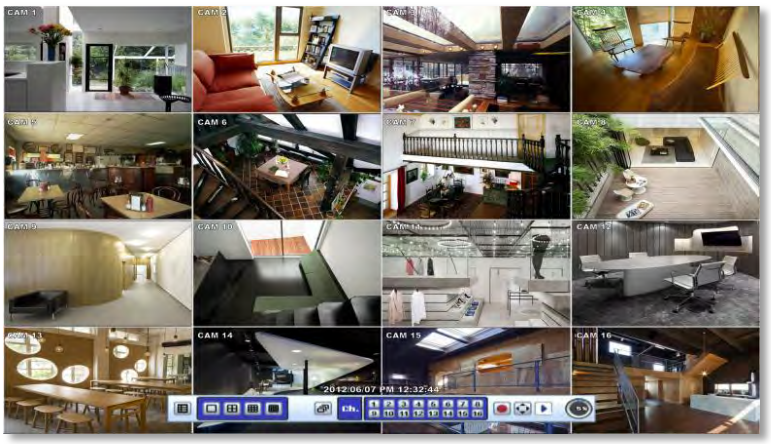
3.3.4 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor.

Icon to be shown at right-upper corner on each channel screen		Icon to be shown at right-bottom corner on full screen.	
C	Continuous Recording		Audio Channel
M	Motion Recording	PTZ	PTZ Control
S	Sensor Recording	HDD	No HDD, Smart Alarm & HDD Failure
C+M	Continuous+ Motion Recording	SEQ	Sequence display on
C+S	Continuous + Sensor Recording	ZOOM	Digital zoom on
M+S	Motion + Sensor Activating Recording		
C+M+S	Continuous + Motion Recording + Sensor Activating Recording		
C	Emergency Recording		
F	FaceStamp Recording		

The sliding menu for display will be appeared when mouse cursor move into bottom and right click of mouse enale to access pop-up-menu.



To show the menu bar, move the mouse's cursor to the bottom of the screen. The menu bar will be displayed.

Menu button. When pressed the following options will appear: System Setup, Search, Playback, Logout.

Screen split options- each button represent a different display option. Select from single channel, 4 channel, 9 channel, or 16 channel display.

Sequence- if pressed, the system will start displaying all the channels in sequence mode. To stop, press the button again, or right click on the screen and select 'SEQUENCE' (See section 3.3.5 Po-Up Window).

CH. Buttons- use these buttons to view a specifc channel in full screen mode. Simply press the channel number of the desired camera to view it in single channel mode.

"instant (emergency) recording"– In emergency recording, the system will record video based on the panic record settings. Default settings for panic record are: 30FPS @ 960x480. If you want to change the panic record settings, go to RECORD → Panic Record.

Enable/ Disable "PTZ" mode- In PTZ mode, user can move pan/tilt and zoom-in/out in supported PTZ cameras by moving the mouse pointer, like a virtual joystick.

Go to Instant playback.

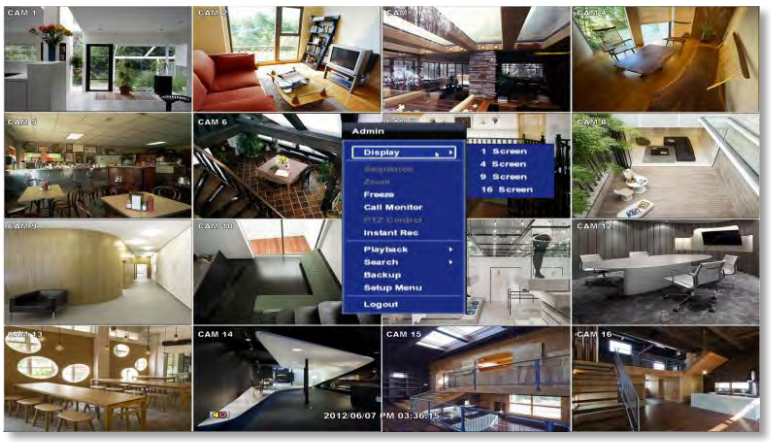
HDD usage indicator- This button will indicate the percentage of your HDD being used for video recording. If it shows 60%, then 60% of HDD space has been used up for recording.

To hide the menu bar, move the mouse's cursor away from the menu bar.

NOTE If you cannot find any colored-mark in the top right corner of the live screen mode, that means that no recording mode has been set for the specific channel. Check the recording schedule for that camera in the main menu options.

3.3.5 Pop-up Menu

Right-clicking anywhere on the screen will open up the pop up sub-menu as shown below:



DISPLAY- Select the display split from the available options:

- 1 Screen- Single channel. Automatically displays CH1. If you select 1 Screen again, the next chronological channel will be displayed.
- 4 Screen- Quad mode. Automatically displays channels 1~4. If 4 Screen is selected again, the next chronological 4 channels (5~8) will be displayed.
- 9 Screen- Automatically displayes channels 1~9. If 9 Screen is selected again, the next cohoronological channels (10~16+1~2) will be displayed.
- 16 Screen- Displays all 16 channels (available only in 16 channel models)

SEQUENCE- when selected,

icon will appear on the bottom right corner of the screen, and the display screen will be sequentially changed (Please note, option will be disabled if display area is in 16 channel mode).

ZOOM- Enables/ disables digital zoom function. When enabled,

icon will appear and zoomed area will be displayed on the bottom right corne. The Zoom will automatical y focus on the center of the camera's display. To adjust ot, go to the small zoom display at the bottom of the camera display and move the yellow frame to the desired are you would like to view in zoom. To move the yellow frame, use your mouse to drag the lines of the yellow frame to the desired location. To go back to live display mode, right-click on the screen and select "ZOOM" again.

When a camera is disconnected, a warning sound, or a pop-up window will appear on the screen, depending on the system settings.

FREEZE- Freezes the current image. See section 3.5 Freeze for more information.

CALL MONITOR- Enter Call Monitor Control Mode. See section 3.6 Call Monitor for more information.

PTZ CONTROL- Open the DVR's PTZ control. See section 3.4 PTZ for more information.

INSTANT REC- Start Panic Recording.

PLAYBACK- Select playback option:

- 10, 15, 30, 60 seconds- start playback from the selected number of seconds ago.
- 2, 3, 5, minutes- start playback from the selected number of minutes ago.
- Open Playback Mode- automatically go to instant playback.

SEARCH- Select video search options:

- Date/ Time- open calendar search.
- First/ Last Data- Go to the first or last recorded data.
- System/ Event Log- open log search window.
- Bookmarks- open bookmark search.
- Cameo- change selected channel to single channel playback in live mode.

SETUP- open the DVR's main menu.

LOGOUT- User logout.

As the Admin user, you can seup up multiple users with different levels of authorization. If a certain user is not allowed to view a certain camera in live or playback, then no image will appear on the display screen. To create, delete, or modify users, go to the main menu and select system settings. See section

3.4 PTZ Operation

Before starting PTZ control, please make sure the camera you wish to control is a supported PTZ camera and is installed and configured properly. See section 4.2.6 PTZ for setup information. To enter PTZ mode, follow one of the options below:

1. Right-click on the screen and select PTZ Control.
2. Click on the joystick button in the menu bar located on the bottom of the main screen.
3. Press the PTZ button on the DVR's front panel, or
4. Press the PTZ button on the IR remote control.

In PTZ mode, user can control PTZ operation with the USB mouse.

While pressing the left button of the mouse, drag the mouse pointer up/down, left/right to move pan/tilt position of the camera accordingly. The further away from the center of the screen you move the mouse, faster will the camera move. The user can also zoom-in/out by rolling the wheel of mouse up or down.

NOTE Full PTZ functions are available by using USB mouse, IR remote control, or keyboard controller and are available only on supported PTZ cameras.

For focus control in PTZ mode, right-click to get the pop-up menu as shown below. Default mode is to "ZOOM". Select "FOCUS" to switch the mouse's wheel function from zoom-in/out to focus near/ far.

The user can also select the preset button to start/ stop a preset, or exit PTZ screen model.

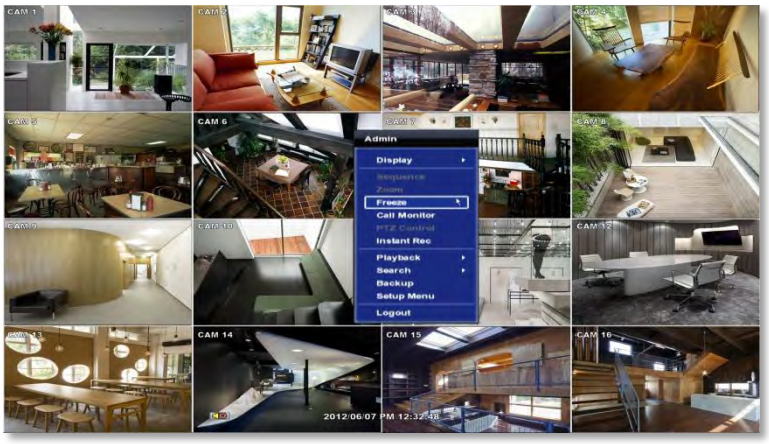
NOTE User will see numeric pad to select "Preset" number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the number of available presets may vary by camera make and model.

User can automatically switch PTZ camera positions according to defined presets by using the GUARD TOUR function. The connected PTZ camera must support touring functions. “GUARD TOUR” on the pop-up menu can be enabled only in full screen mode. See 4.2.6 PTZ for instructions on how to setup the GUARD TOUR.

CAUTION	Depending on PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval settings to a value that allows for the cameras to finish its Pan & Tilt.

3.5 Freeze Mode

Press FREEZE button on the front panel, or click the right button on the mouse and select the Freeze mode while viewing a live image. In the Freeze mode, the image from the cameras will freeze, but the the date/ time information at the bottom of the screen will not. To resume the live view, press FREEZE again, or click the right button on the mouse and select the FREEZE.

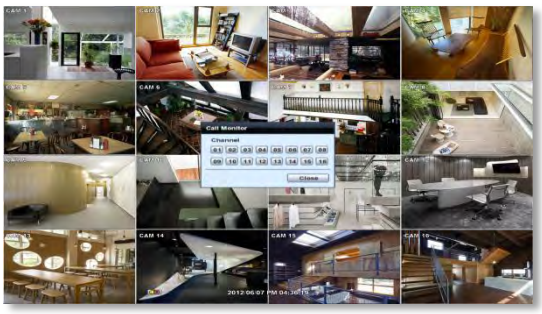


3.6 Call Monitor Operation

Press the CALL MON button on the front panel, or click the right button on the mouse and select the CALL MONITOR to enter call monitor control mode. The numeric panel will pop up at the center of the screen.

Enter the channel number on the numeric panel to display full screen mode out of assigned spot out channels.

▪ Press the close button on the bottom of the numeric panel to go back to the previously programmed spot monitor mode.



NOTE - A spotout monitor displays another spotout monitor's video in full screen through the function
- In spot sequence, if Call monitor is selected, spot sequence stops and selected channel pops up.
- While call monitor runs, if a channel event happens, Call monitor stops and the event pops up.

3.7 Playback of Recorded Video

To play a recorded video, press the Play button from the menu bar, or the Instant Play in the DVR's front panel or on the IR remote controller.

The recorded files can be seen in rewind or fast forward modes. Press the rewind and fast-forward buttons to control the playback's speed (2, 4, 8, 16, 32 times real time when playing backwards or forwards).

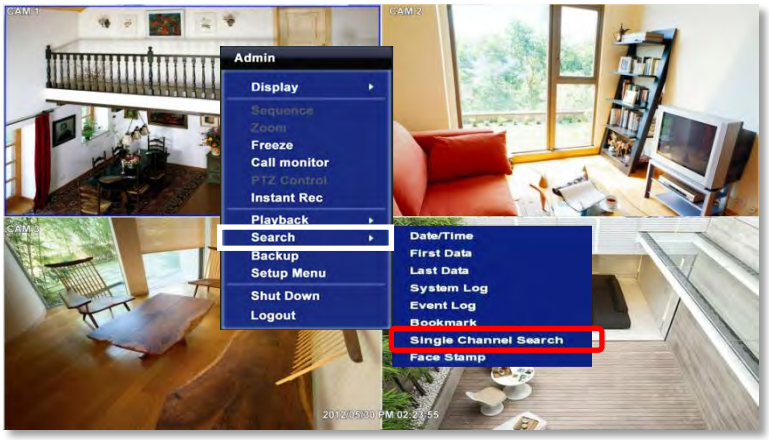
User can click playback button to automatically play the latest video clip in rewind mode.

In playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.

Button	Function
	Jump to first data. If recording is set to motion, system will jump to previous recorded motion video.
	Fast rewind
	Frame-by-Frame Rewind
	Play video in rewind
	Pause video
	Stop Playabck. When selected, the Playabck menu window will appear.
	Playback video
	Frame-by Frame playback
	Fast playback
	Jump to last data. If recording is set to motion, system will jump to the next recorded motion video.
	Go to calendar search
	Bookmark Video
	Export/ Instant Bakup
	Exit Playback to Live mode.

3.8 Single Channel Playback in Live Mode (Cameo)

Single channel playback can be displayed while other channels are still in live mode. In live view mode, right-click on the channel that you want to view in playback and select Search→ Single Channel Search.



Hover the mouse's cursor over the selected channel to display the playback control bar. Use the playback control bar to playback, fast rewind, pause and play the video. The channel in playback mode will be indicated by a blue frame around it.

To return to live mode, press the x button on the top right-hand corner of the playback control bar.

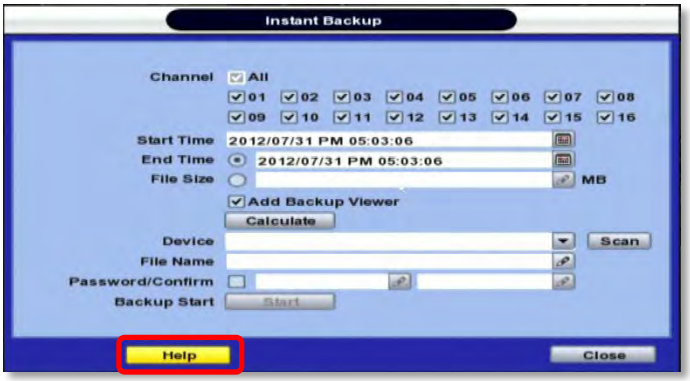
3.9 Quick Backup during Playback

User can easily archive video while viewing the video during live or playback mode.

1.

In playback mode, press and hold the “I.BACKUP” button on the front panel to set start time for the backup video. “INSTANT BACKUP START” will appear at the bottom right hand corner of the display.

2. Press the “I.BACKUP”button again to set the backup’s end time. The backup menu window will pop-up.
3. If necessary, adjust the following options:
   a. Select the channels to be included in the backup file.
   b. Adjust the start and end time of the backup file.
   c. Select to include the Backup Viewer with the archived file.
   d. Calculate the expected size of the backup file
   e. Device- CD/DVD or USB thumb drive.
   f. Complete the backup.



NOTE

The “HELP” button oofers interactive help, recommended settings and step-by-step instructions on how to correctly setup main functions in the DVR. For example, if you need help on how to set “BACKUP”, click “HELP” button at the right bottom of the BACKUP menu.

3.10 Search Recording Image

3.10.1 Date/Time Search

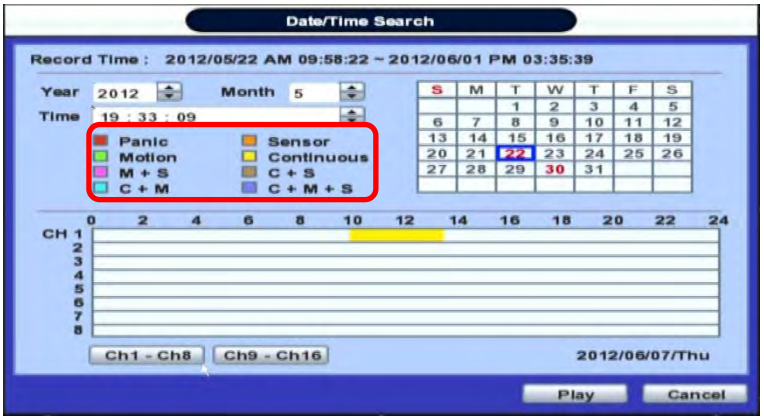
To search your recorded data by date/ time, follow one of the options below:

1. Click the quick Menu button at the left side of the menu bar, select Search→ Date/ Time
2. Right-click anywhere on the screen, select Search→ Date/ Time

The calendar window will appear, Days with recorded data available will be indicated in RED.

1. Select from the calendar the date. If necessary, use the manual year and month options on the left side to adjust the calendar view.
2. The 'Intelli-Search Bar' at the bottom of the window will display hours when recorde data is availablein color code. Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see "the Search time" clock is also changing. When user decides the Search time, click Play to see the selected video data.

3. The colors of the time bar are different, depending on the recording mode.



No color - NONE- Camera has no recorded data for the selected time.
Red- Panic recording- recording triggered by the user when pressing the Instant/ Panic Recoreding.
Yellow- Continuous recording.
Green- Motion recording- The system records only when motion is detected.
Orange- Sensor recording- The system records when a sensor is triggered and only during the dwell time as set in "SENSOR" of the "DEVICE" menu. If "SENSOR" is disabled under the "DEVICE" menu, and recording schedule is set to "SENSOR", the system will not record even though a sensor is triggered.
Blue- "Continuous" + "Motion"-The system records continuously and will switch to the motion recording configuration if motion is detected in the motion area. The system will also send a "motion event" message to the Pivot Client Software over the network. If "MOTION ALARM" is disabled in the "DEVICE" menu, and recording is set to "CONT + MOT", the system will record with continuous recording even when motion is detected in motion area.
Orange- "Continuous" + "Sensor"- The system records continuously and will switch sensor recording if a sensor is triggered during dwell time. The system will also send a "sensor event" message to the Pivot Client Software over the network. If "SENSOR" is disabled in the "DEVICE" menu, and recording mdoe is set to "CONT + SENS", the system will record with continuous recording even when a sensor is triggered.
Pink - "Motion" + "Sensor"-The system records only when motion is detected **AND** when a sensor is triggered at the same time. If 'MOTION' and 'SENSOR' are both disabled in the "DEVICE" menu, the system will not record nor notify the Pivot Client Software when motion occurs or a sensor is activated.
Purple- "Continuous" + "Motion" + "Sensor"- The system records continuously and will switch to 'MOTION' or 'SENSOR' recording mode if motion is detected in the motion area, or if a sensor is triggered during dwell time.

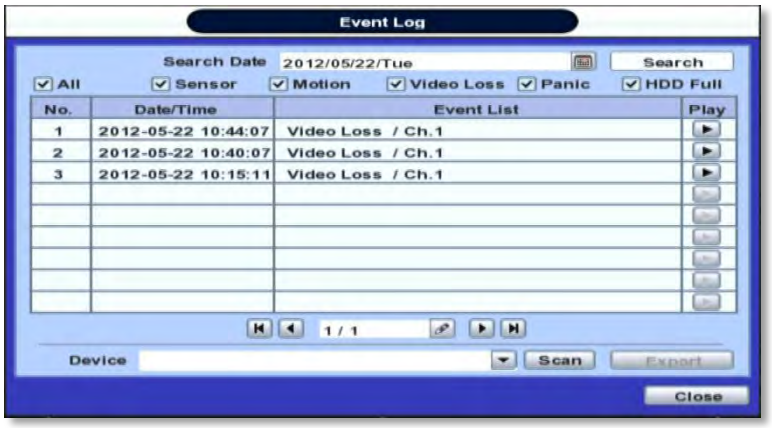
4. To view video from the selected time, follow one of the options below:
    a. Use the manual hour option to view specific hours of the day.
    b. Using the table, click on the hour you would like to view in playback.
5. Press the 'Play' button at the bottom fo the window. The system will display all channels in playback mode, corresponding to the selected date and time.

CAUTION	**Dark Blue Color-** The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

3.10.2 Event Log

The Event log search allows you to search for a particular event, quickly and easily, displaying the search results in a detailed table format.

1. To open Event Log Search, perform one of the following options:
    a. Click quick menu button, select Search→ Event Log
    b. Right-click anywhere on the screen ans select Search→ Event Log.
2. Select the date you would like to search.
3. Select which events should be included in the log report. Select from: Sensor, Motion, Video Loss, Panic Recording, HDD Full, or All.
4. Press 'Search'. The system will display all search results in the table, starting with the latest events.
5. Use the buttons on the bottom of the window to move between the log report's pages.
6. If necessary, export this log report to a USB memory device in text file format.
    a. Attach a USB memory stick to the USB port
    b. Press "SCAN" to detect the USB stick
    c. Press "EXPORT" to copy the log information to the media.



To see video associated with a particular event, press the play icon next to the event you would like to view.

NOTE If an alarm or event do not appear in the envent log, check the alarm settings, and connection port at the DVR's rear panel.

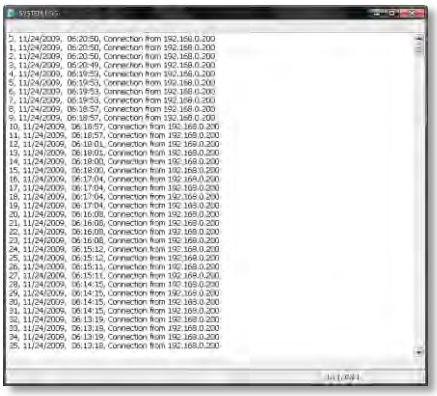
3.10.3 System Log

The system log search allows you to search for any changes made to the system, quickly and easily, displaying the search results in a detailed table format.

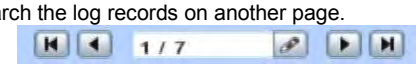
7. To open System Log Search, perform one of the following options:
    a. Click quick menu button, select Search→ System Log
    b. Right-click anywhere on the screen ans select Search→ System Log.
8. Select the date you would like to search.
9. Select which events should be included in the log report. Select from: System, Setup, Network, or All
10. Press 'Search'. The system will display all search results in the table, starting with the latest events.
11. Use the buttons on the bottom of the window to move between the log report's pages.
12. If necessary, export this log report to a USB memory device in text file format.
    a. Attach a USB memory stick to the USB port
    b. Press "SCAN" to detect the USB stick
    c. Press "EXPORT" to copy the log information to the media.

Once export is completed, the user can find a date folder created in USB thumb drive.

There is "system.log" file stored in the date folder.



NOTE 20 numbers of log record will be shown on one page of the <System Log> and <Event Log> window. User can click the arrow icon to search the log records on another page.



3.10.4 First Data

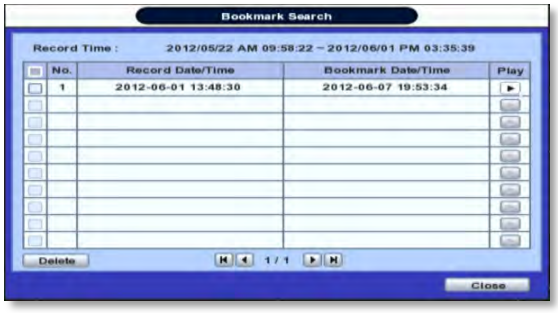
If selected the system will go to the first screen of the recorded video. This is the oldest video recorded.

3.10.5 Last Data

If selected, the syste, will go to the last screen of the recorded video. This is the latest video recorded.

3.10.6 Bookmark

If selected, the syste, will go to the bookmark list to search the recorded video data in the bookmark list. You can create your own bookmark list by clicking the B-MARK button during playback. When you perform a bookmark search, all bookmarked videos will appear in a table format, allowing you to easily playback the bookmarked video data by clicking the button, right next to each bookmark.



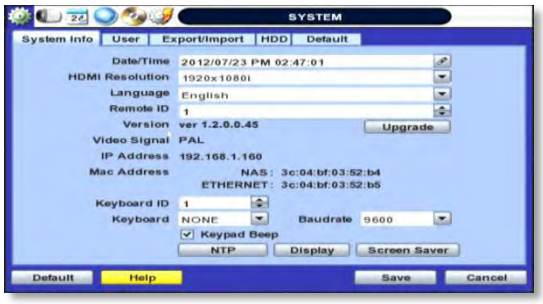
NOTE Press "SEARCH" on the front panel to get the SEARCH pop-up menu as shown above. In this menu, full search functionality is controlled using the front panel key buttons.

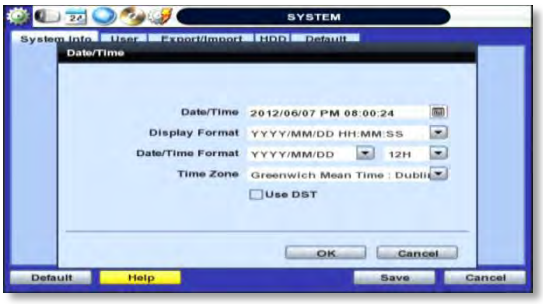
3.11 DST Setting

DST starts at 2:00 local time on 2nd Sunday of March, and ends at 2:00 DST on 1st Sunday of November in most of North America.

During DST (Daylight Saving Time) period, DVR time clock has to be adjusted according to regional time zone. That is, the DVR time clock will be shifted by one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST ends.

To make DST setting on the DVR, go to the menu: SYSTEM > SYSTEM INFO and click “DATE/TIME” to get the DST setting window as shown below. Setup DST “Begin & End” time after checking the “USE DST” box.



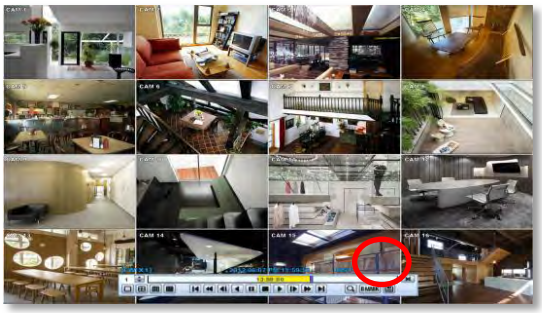


Since the clock jumps forward when DST begins, from 2:00 to 3:00, no data will be displayed on the search mode for all channels for one hour due to DST.

When DST ends, the clock will jump backwards, from at 2:00 to 1:00. In this case, there will be an hour of overlapped video. The overlapped video will be indicated in a blue color in the Intelli-Search Bar during playback mode.

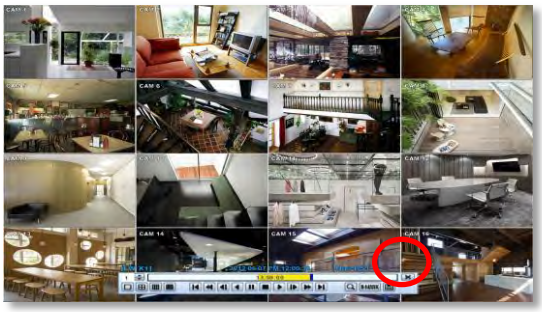
When the overlapped video is selected in playback mode, a message titled "Recorded video Selection" will pop up. The user can then select to play DST data or Non-DST data.

Click OK to play DST image.



["DST" image is displayed on screen]

Click CANCEL to play Non-DST image.



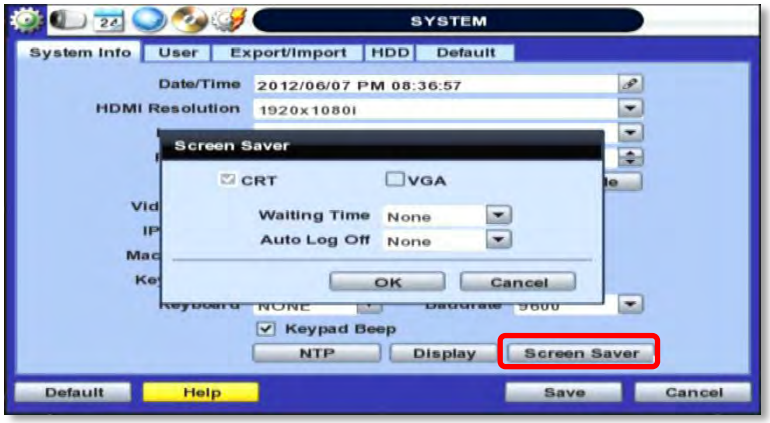
["Non-DST" image is displayed on screen]

3.12 Screen Saver

To setup a screen saver for your DVR, go to the menu setup: SYSTEM > SYSTEM INFO and click "SCREEN SAVER" to get the SCREEN SAVER setting window as shown below.

Select CRT and/or VGA, and set the WAITING TIME for when the monitor will automatically turn off. Select the waiting time from: NONE, 1,2,3,4,5,6,7,8,9,10,20,30,40,50, and up to 60 MIN

To turn on the selected monitor, click with your mouse, press any frontal key buttons, or press any buttons on the remote controller.



NOTE The SCREEN SAVER will not work when WAITING TIME is set to "NONE" or both SPOT and VGA checkbox are unchecked. SCREEN SAVER may not work during system upgrade, HDD formatting, or data backup process. The system will continue recording while the monitor is turned off. See 4.1.2USER for more information on "AUTO LOGOFF" settings.

4 SETTING

General setting structure consists of “System”, “Device”, “Record”, “Network”, “Backup,” and ‘Quick Setup” as shown

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<BACKUP>

<Q-SETUP>

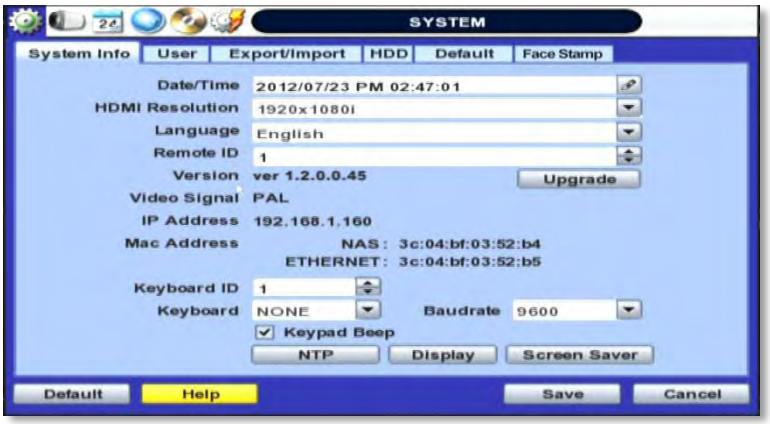
Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	EXPORT/IMPORT
	HDD
	FACTORY DEFAULT
	FACE STAMP
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	LIVE STREAM SETTING
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
BACKUP	BACKUP
	NAS BACKUP
	NAS SERVER
Q.SETUP	QUICK SETUP

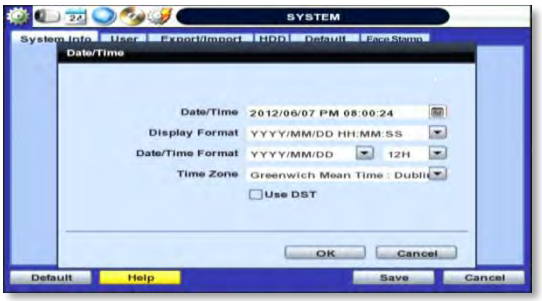
To move between the menu options, move the mouse pointer from “System” through “Quick Setup” to instantly display the sub-menus. Click on any sub-menu to acces it.

4.1 System

4.1.1 System Info

The System Info sub-menu includes the following setup options: Date/ Time, HDMI Resolution, Language, Remote ID, Version & System Upgrade, Video Signal, IP & MAC Addresses, Keyboard Setup, NTP Setup, Display Setup, and Screen Saver Setup.





- **Date/ Time**- manually enter the DVR's date and time, time zone, and enable/ disabled DST.

  Using the available options, manually adjust the date and time from the calendar, select the display mode for the time, and the date, and select the appropriate time zone. If applicable, check the 'USE DST' box. See section 3.12 DST Setting for more information.

- **HDMI Resolution**- Select the DVR's output resolution. DVRs support the following video resolutions: 800x600, 1024x768, 1280x1024, 1920x1080.
  User must set the proper resolution according to the monitor resolution

- **Language**- Select the DVR's display language from the availanle in the drop-down menu.

- **Remote ID**- Set the DVR's remote ID. This ID should be the same as the IR Remote Control.

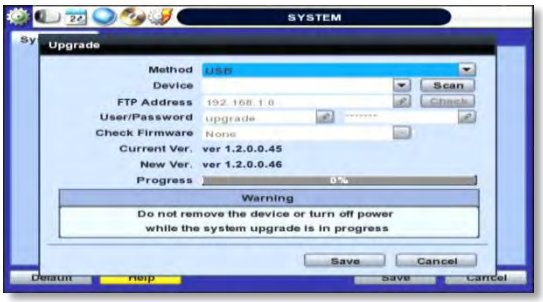
- **Firmware Version & system upgrade**- when a new version is available, use the easy upgrade menu to upgrade your DVR to the latest version. To upgrade your system, follow one of the options below:

  Upgrading system using USB memory stick:

  1. Insert the USB thumb-drive formatted by FAT32 in any USB port of DVR (compatible with USB 2.0)
  2. Once the system detects the thumb-drive, user can see its brand or model name in the "DEVICE" field after pressing the "SCAN" button.
  3. Click "OK" to confirm.

  Upgrading system using Digital Watchdog's FTP server:

  1. Select FTP in the drop-down list and type a given IP address in the Host Address (Digital Watchdog's FTP Server IP Address: **208.179.32.42**). Username and password is "none" (Default).
     *The FTP server address is subject to change without a prior notice.
  2. Click 'Check' button then DVR will detect the latest Firmware version from the FTP server. If there is a new firmware, DVR will ask you whether you want to upgrade it or not.
  3. Click 'OK' to confirm it and then click 'START' to start upgrading.



CAUTION	It is recommended to format the HDD after finishing the firmware upgrade because the data recorded by previous firmware may cause malfunction of DVR due to different format. It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance. If necessary, you can return system to its default settings.

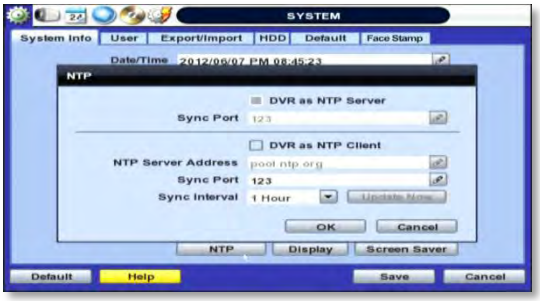
- **Video Signal**- Displays the video out signal from the DVR.

- **DVR's IP & MAC Addersses**- This information is necessary when connecting to the DVR via its web viewer or the Pivot Client Software. See section 4.4 Network for more information and configuration options.

- **Keyboard setup**- Setup the DVR's ID, baudrate and model to match the information of the keyboard you would like to use. The Keyboard's ID must match the ID set in the DVR.

- **NTP Setup**- Setup the DVR to automatically sync with a Network Time Protocol.
  There are two types of TIME SYNC MODE:

  - Server Mode- The DVR is set as a Time Sync Server, which can synchronize its own time with another DVR(s) connected over the same network environment.
  - Client Mode- The operating DVR is set as the client DVR. Enter the IP address or URL of another DVR, Advanced Client Software (ACS), or Central Management System (CMS), as a Time Sync Server in "SYNC SERVER". This will cause your DVR to sync its time with a Time Sync Server in the set interval time.



- **Display Options-** Set sequence dwell time, spot-out dwell time, spot-out channel, pop-up camera, and OSD as indicated below:

  - OSD:
    - Select which information will be displayed in the OSD visible on each channel in **Live**.
    - Select which information will be displayed in the OSD visible on each channel in **Playback**.
    - Set the OSD's transparency level, the higher the percentage, the more transparent the OSD text will appear.
    - Setup a dwell time for the OSD text, after which, the OSD will automatically disappear.
    - Setup a dwell time for the Setup Menu, after which, the Setup Menu will automatically disappear.
  - Set sequence dwell time- Setup how long the system will display each channel in Sequence mode, before switching to the next channel.
  - Spot-out Monitor Spot monitor operation
    1. Spot out display mode - It supports programmable multi display mode(Full,4,9,16) on digital spot output.
    2. Spot out channel select- Spot out monitor displays selected channels only or spot sequence displays.

       ** Non-selected channels are not displayed as black screen in covert
    3. Spot out cam popup- If cam popup is set in Sensor, Motion notify, Spot monitor also pops up the event.
    4. Spot Monitor interval- Spot Sequence time setting
  - You may select On/Off for Live or Playback status display by checking a check box.

- **Screen Saver Setup**- See section 3.13 Screen Saver for more information.

4.1.2 User

Master user of this system is always Admin with factory default of No password. This user cannot be deleted.

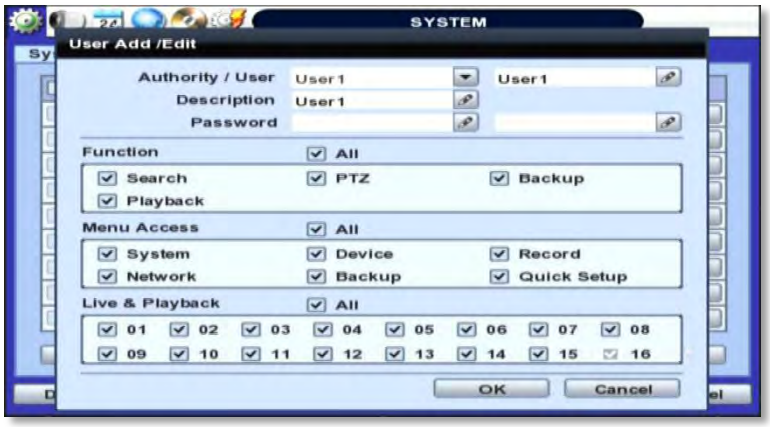
It is recommended that the Admin change the password for extra security.

Admin can designate a new user with different permission levels by: functions, menu access, and live & playback.

“Function” options restrict a user’s access to functions such as search, PTZ control, backup, and playback.

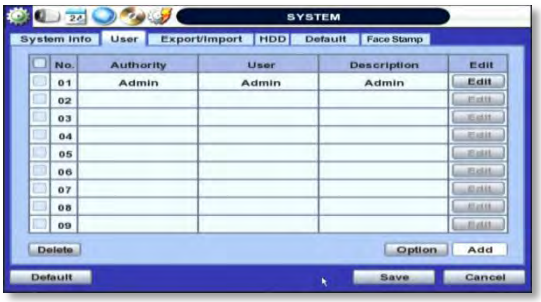
“Menu Access” options restric a user’s access certain menu settings, like system, device, record, network, backup, and quick setup.

“Live & Playback” options restrict a user’s viewing of the deselected channels. If a channel is deselected, user will not be able to view live or playback for thet certain camera channel.



NOTE Total number of users including administrator is 9 users.

Admin user can also select whether the DVR will repuire login for every main function.



If user selects “On Boot”, the DVR will not ask for an ID and Password input again even though the system reboots.

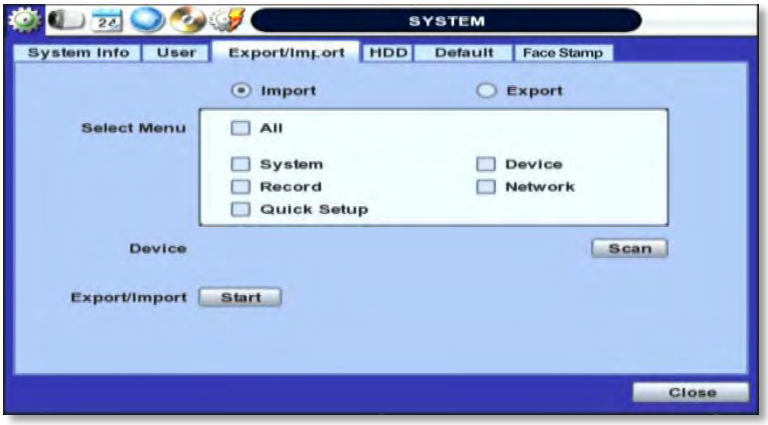
On the contrary, if user selects Auto Log-off and sets the time, the DVR will automatically go to the live display mode that occurs after the set time. Then, the DVR will ask for an ID and Password input when user wants to control the DVR.

4.1.3 Export/Import

If you have multiple DVRs, you can copy the settings from one DVR and apply it to others, saving you time and guaranteeing proper installation on all devices.

"Export" allows you to copy the settings set for current DVR to a USB memory device.

"Import" allows you to apply the settings from another DVR using USB memory device. During the import process, make sure that the firmware version of source DVR is the same as the destination DVR.



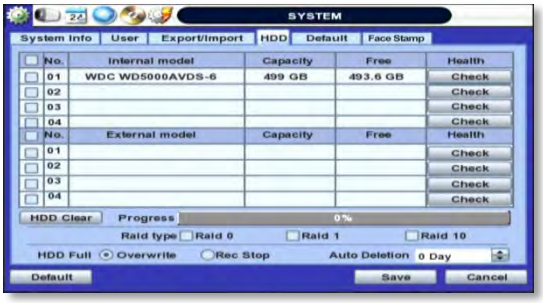
4.1.4 HDD

HDD information sub-menu displays all relevant information regarding all HDDs connected to the DVR. The system will display internal HDDs and externl HDDs (eSATA) separately.

Press the 'Check' button next to the HDD's name to view that HDD's health status. When pressed, the system will display the HDD's model, size, current temperature, Live Time (how long the HDD has been operating), and any Bad Sectors.

User can select "Overwrite" or "Rec Stop" when the HDD is full. If 'Overwrite' is selected, when the HDD is full, new video will be recorded OVER older data. If 'Rec Stop' is selected, the HDD will stop recording any data once it's full.

To formay a new HDD or an existing HDD, check the checkbox next to the HDD you would like to format, and click "HDD Clear".



If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system resources and then try to format again.

NOTE 1) Formatting may take around 40 sec for 320GB, 1 minutes for 500GB, or 7 minutes for 2TB.
2) The system always reserves a maximum of 20GB of space in each built-in HDD to utilize the memory for archiving effectively.

4.1.5 Factory Default

With an authorized password, users can get the system back to factory default configuration.

NOTE Upon clicking "Start" and entering the admin password, all the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.1.6 Face Stamp Set-up

The Facestamp is an exclusive Digital Watchdog feature used for employee and time amangement. It is compatible only with Digital Watchdog's VMAX960H series.

If you have purchased the Facestamp hardware, follow the instructions below on setting up the Facestamp on the DVR. Consult the Facestamp's QSG for additional installation information.

- Connect the FACESTAMP hardware to the DVR using an RS-485 cable. Connect the cable to the DVR's KEYBOARD RS-485 port. See 2.2 Rear Panel for more information.
- Go to System Setup→ System Info sub-menu
- Select 'FACESTAMP' in the Keyboard options from the drop-down menu.
- Adjust the Baudrate to 115200
- Adjust the Keyboard ID to 252 or 250.

4.1.7 Face Stamp User Registration

Listed users can be monitored as Faces Stamp events through VMAX960H & VMAX960H Flex when listed users check in and out Face Stamp.

To add, delete, or modifty Facestamp users, go to the DVR's System Settings, Facestamp sub-menu.

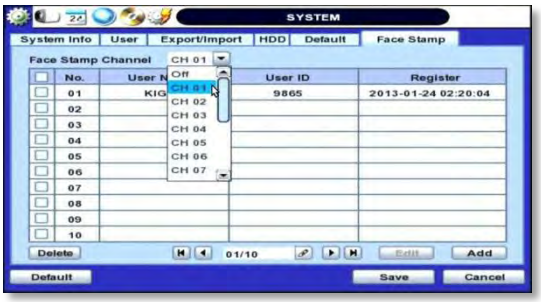
1. Select the channel to which the Facestamp access panel is connected.

2. To add a user, press the add button.

3. Enter a USER ID. This will be the ID e ach user will have to enter in the Face Stamp Access Panel to identify themselves.

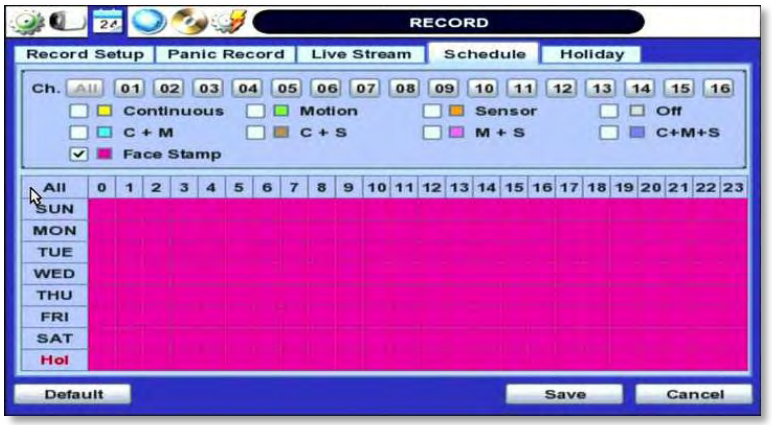
4. Enter USER NAME. This name will appear as the access panel recognizes the user's ID when entered correctly.

5. To modify or delete a user, check the box next to the user's name and press 'modify' to adjust the user's name, or 'delete' to remove the user all together.



4.1.8 Face Stamp Schedule

Go to the Schedule Setup menu to assign the Facestamp channel a recording schedule. After selecting the Face Stamp channel, user schedule this with Face Stamp profile. See section 4.3 Record for more information on setting up a recording schedule.



4.1.9 Face Stamp Search

Whenever users check in our out using the Face Stamp access panel, the check in or out will be recorded as an event, and a picture of the user will be stored in the DVR. Managers then can search and review their employee's time and attendance.

To perform a local search on the DVR for all Facestamp events follow these steps:

1. In live mode, right-click anywhere on the sreecn and select Search→ Face Stamp.

2. Facestamp search window will appear. Select the day you want to search from the calendar. Days with recorded data will be highlighted in the calendar.

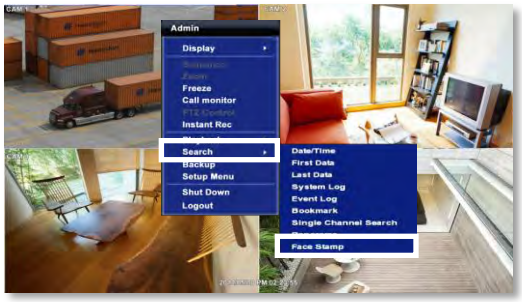
3. Select to view all events markeed as Check-in, check out, or both.

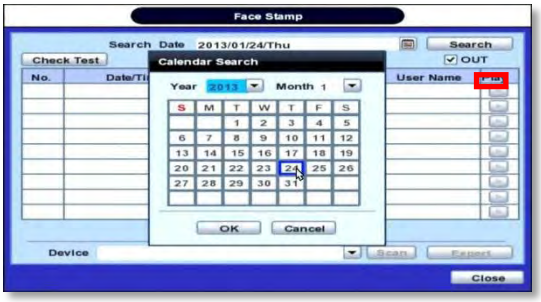
4. Press the 'Search' button.

5. Press the button next to an event to view three (3) seconds of video associated with the selected event.

6. Press 'Check Test' to check a user out. Enter the user's ID number and press OK. They will appear as checked in the system.

7. you can export the event search result for your records. Connect a USB to the DVR, press scan and allow the system to find the USB device. Select Export to save the data in table format.





For more advance searching and playback options see the Facestamp software.

4.2 Device

There are Seven sub menus in the Device menu, such as Camera, Audio, Sensor, Motion Alarm, Extra Alarm, PTZ and POS. Users can easily move to the "Device" menu by selecting the icon on the top right of the menu screen.

4.2.1 Camera

Users can setup camera title, covert, brightness, contrast, motion sensitivity, and audio mapping for each camera.

"Covert," also called "hidden camera" feature, hides camera display and playback as if there were no camera recording.

Users can apply this covert function not only to Live view, but also to Playback view.

The default motion area setup is the entire camera area.

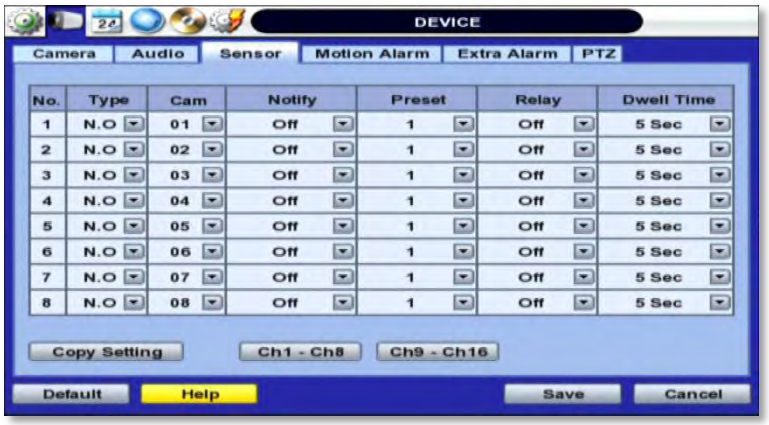
See section 3.3.2 Image Enhancer (Long Reach) in page 14 for more information on the purpose and setup of the Long Reach features.

4.2.2 Audio

Users can select the audio input and output during live display and match the audio input to a designated channel. (Please refer to Section 4.3.1 Camera Record). Adjust the audio volume using the volume control panel, enable or disable audio recording for each channel, and enable or disable audio during live video.

In addition, users can listen to the audio for both live display and playback mode through the network using Advanced Client Software (ACS), Central Management System (CMS), and/or Internet Explorer web browser.

4.2.3 Sensor



- **Type-** OFF, N/O (Normal Open) , N/C (Normal Close) The Sensor.
- **Cam-** Select the associated camera**.**
- **Notify-** Users can select how to be alerted when a sensor is activated or motion is triggered by pressing the "NOTIFY" button. The system can generate a buzzer sound and/or make a pop-up screen for the camera in alarm.

CAUTION	Relay contact can handle up to 24VDC/1A(or 125VAC/0.5A) of other devices. If connected to a circuit that is over 24VDC/1A(or 125VAC/0.5A), the system may experience problems.

- **Preset-** User can select the camera to move to a preset position, once the sensor is triggered. (User should setup preset position in PTZ menu 4.2.6 in advance)
  In addition, users can set multi-preset with a single PTZ camera. Therefore, users can cover a multi-preset zone with a single PTZ camera.

- **Relay-** 1~4/Off Relay Output.

- **Dwell Time-** Set the recording period from the start of sensor input activation. During this period, the corresponding camera video will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time has elapsed.

- **Copy Setting-** Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the sensor the user wants to copy from at the "From" field. Choose the parameters such as Type, Cam, Notify, Preset, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Sensor" here means the alarm connected to the DVR, which is triggered by physical sensor input.

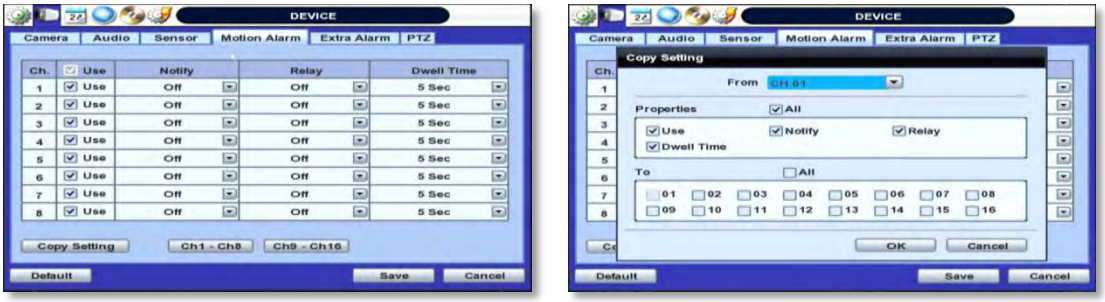
NOTE If the sensor does not operate properly check the setting of the sensor type (N/O or N/C).
The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

NOTE "Camera pop-up" means that multi-screen live video mode will be switched automatically to single channel mode, when an alarm is triggered. This single channel video will be the channel triggered by alarm.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

An alarm signal is sent via the selected sensor-out channel.



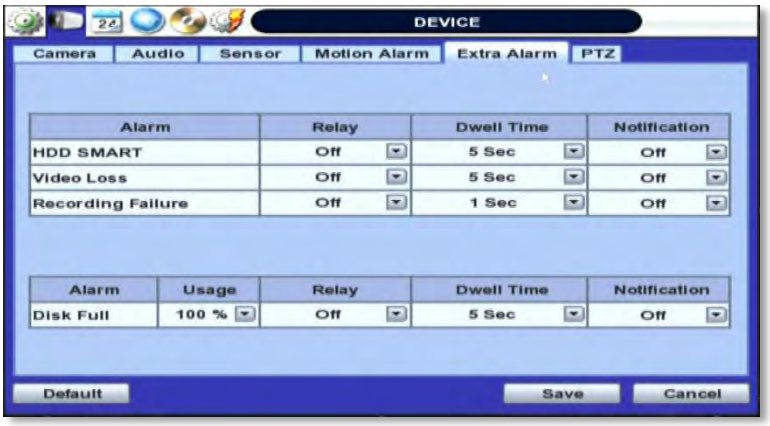
- **COPY SETTINGS-** Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from at the "From" field. Choose the parameters such as Use, Notify, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

4.2.5 Extra Alarm

S.M.A.R.T. alarm is an alarm signal triggered when the HDD is about to be out of operation.

This alarm is created by the HDD and captured by DVR. If the HDD does not create this alarm, then the DVR also cannot capture and output this signal.



Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.

4.2.6 PTZ

Full control of PTZ camera is available in this menu. For details, please refer to Section 3.4 PTZ Operation.

- **Protocol-** Select the proper protocol of the connected PTZ camera.
- **Address-** Set the PTZ driver address of the connected camera.
- **Check the below items for proper P/T/Z operation.**

1. Check if the protocol of the connected PTZ camera is correct.
2. Check if the communication settings, including the baud rate, of the connected PTZ camera are in accordance with the assigned value for that P/T/Z protocol.
3. Check if the address of the connected PTZ camera is correct.
4. Check if the wiring to the P/T/Z controllers are correct.

PROCEDURE	**How to setup PTZ camera with Pelco-D protocol (example)**
	1) Make sure the serial communication with the PTZ camera is through RS-485 port. 2) Select "Pelco-D" at the protocol list, and set the address. 3) Select Baud Rate to be the same as the PTZ camera 4) Click the "Save" button to confirm this configuration.

- **Preset-** The system supports the number of preset from 1 to 255.
- **Baudrate-** User can select the baud rate level from 1,200bps up to 115,200bps.
- **Tour-** once the PTZ camera is properly setup, you can set it to run a tour, moving between a set of predefined presets:

1. Make sure you have at least 2 presets set in the DVR. To do so:
   a. Enter a preset number in the preset box.
   b. Move the camera to a desired location
   c. Press the'Set' button.
2. Press the 'Set' button next to the Guard Tour.
3. Select the channel in which you have a PTZ camera connected and press 'edit'
4. Select the presets you want to use from the preset column and oress the >> button to add them to the Guard Tour sequence. Please note that the presets will run in the order in which they appear on the right column.
5. If necessary, adjust the time interval between each preset fro 5~30 seconds.
6. To start the Guard Tour, Press the 'Tour' button.

4.3 Record

Users can configure various record settings such as Continuous, Event, and Panic for each individual camera in the Record Setup Menu. Network Stream settings are independently configured from the Record settings in this menu as well. Use this setup option to ptimize the bandwidth used by the DVR by configuring the resolution, FPS, and image quality separately.

4.3.1 Record Setup

Under the Record Setup tab, set the desired resolution, frame rate, quality and recording for each camera, and for each recording mode. Use the copy setting button to apply the recording settings from one channel to multiple cameras.

NOTE **COPY SETTINGS**

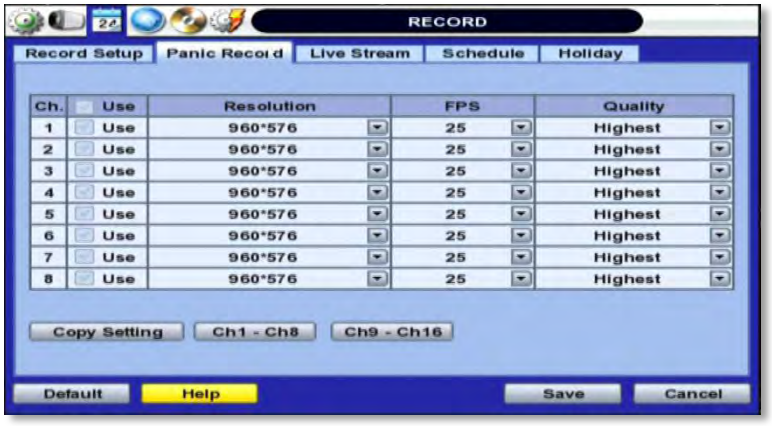
Copy Settings popup allows you to choose the camera you want to copy from in the “FROM” field. Choose which settings you want to copy, such as Resolution, FPS, Quality, Event Resolution, Event FPS, Event Quality, PreAlarm and PostAlarm. Check the checkbox next to the cameras to apply the copy setting(s) to another channel on the “To” box.

Users can also configure the Network Stream settings independently from the Record settings under the "Live Stream" tab as shown below.

The Live Stream menu enables users to optimize data transmitted over the network by configuring the Resolution, FPS, and Quality without affecting the Record settings.

For example, users can configure 960H (960x480) resolution, 15 FPS with Normal quality for Live Stream (over the Network) and configure 960H (960x480), 30 FPS with Highest quality for recording video.

Users also have the option to configure different settings for Panic Recording. The Panic Record setting will be applied wen you select to start panic recording for any of the channels. It is highly recommended to use the maximum resolution, FPS, and quality for this record type.

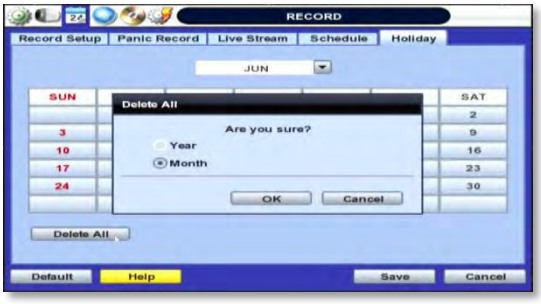


4.3.2 Schedule

You can set up the record schedule by applying a various record modes to each date and time. Simply select a record mode by mouse and drag it to the desired date and time.

4.3.3 Holiday

Users can setup a specific day of a month or day of week as a holiday as shown below. Once holiday is selected, the recording setup for those holidays will be affected by the schedule setting in the schedule.



4.4 Network

4.4.1 Network

The system has built-in web server.

- **ETHERNET**

- DVR network system

- ETHERNET LAN port

- **Network Type**

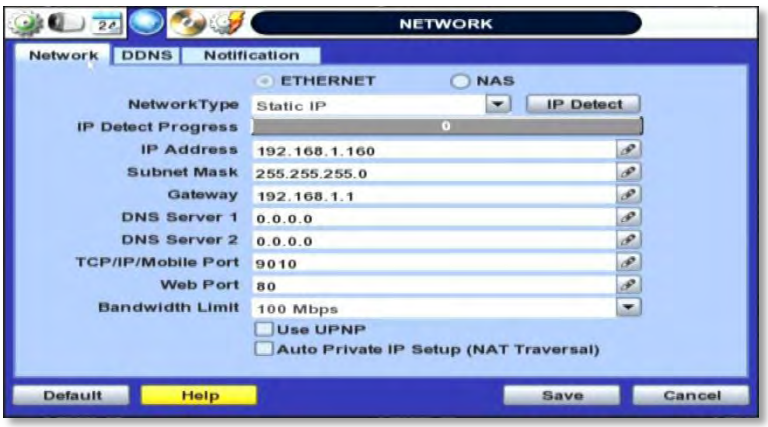
Select network connect type. Select either LAN for fixed (Static) IP or DHCP for dynamic IP.
If DHCP is selected, click 'IP DETECT' button to automatically detect IP address and network information.

- **Subnet Mask**

Subnet Mask address classifies the subnet that the system belongs to. Standard address is 255.255.255.0. For more information, please consult your network administrator or your internet service provider

- **Gateway**

This is the IP address of the network router or gateway server. It is required when the user wants to connect through the external router from the remote. For more information, please consult your network administrator or your internet provider



- **DNS Server**

Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS)
*You should enter the DNS Server information in order to use internet. (Provided by your ISP)

- **TCP/IP Port**

Enter the port number to use when connecting locally or remotely.

- **Mobile Port**

Enter the mobile port number to use when connecting to mobile phones.

- **Web Port**

Enter the port number to use when connecting from the Web Browser.

NOTE TCP/IP Port, Mobile Port, and Web Port should be a different number from each other.

- **UPnP (Universal Plug and Play) and Auto Private IP Setup (NAT Traversal)**

UPnP stands for Universal Plug and Play, which indicates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that a PC can connect to the DVR directly by clicking on the icon representing the DVR in <My Network Places> folder as shown below. The first five characters of the file name of a detected DVR is subject to a firmware version

Simply double click on the desired icon. Then, it will open an internet browser that connects to the DVR via the remote control software as shown below. Please type in your User ID and Password to login and click 'Connect' button to connect.

- **Auto Private IP Setup (NAT Traversal)**

The UPnP NAT Traversal function will help to automatically setup a router if the DVR connects to the internet via a router.

When a PC connects to a DVR, which is not in the same local area network, a real IPO address and corresponding port number is required. However if the DVR is behind a router, the communication between the PC and the DVR will be transmitted back and forth by the router. The router will need to setup port mapping (Port Forwarding) before images from the DVR is remotely viewed on the PC. For each individual DVR, the setting needs to be done individually.

If the DVR has UPnP NAT traversal function, the setting of the router will be done automatically when it is enabled.

Just check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself.

NOTE The system transfers video images at real-time over the network even during no record.
For example, user can monitor live video even when motion has not occurred during motion detection mode.

NOTE If there is no physical network connection, it may take a few minutes for the system to start working, since the network configuration in DHCP mode and the DHCP connection cannot be made.

4.4.2 DDNS

The User has to mark the "Use DDNS" check box to use it.

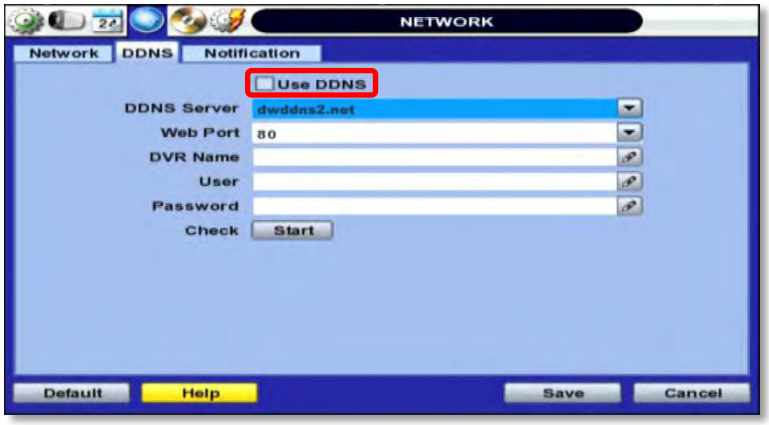
- **DDNS Server**

dwddns.net or dwddns2.net is the fixed domain name of DDNS server.

Enter a desired DVR name. If you would like, add a user and password protection when users will connect to the DVR using the DDNS.

Press the 'Start' button. If the DVR name you have entered is available, press the 'Save' button.

To access your DVR using the DDNS address, open an internet explorer page, and enter in the address bar "DVRName.dwddns2.net"



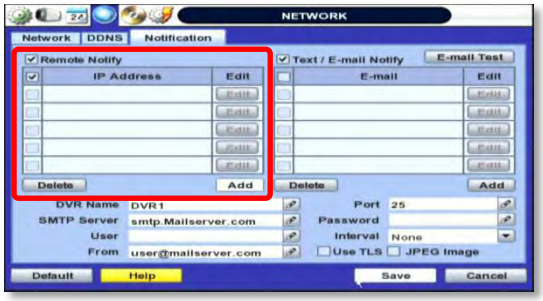
NOTE The standard DDNS domain name is dwddns2.net, and users can use dwddns.net or dyndns.com by drop-down list.

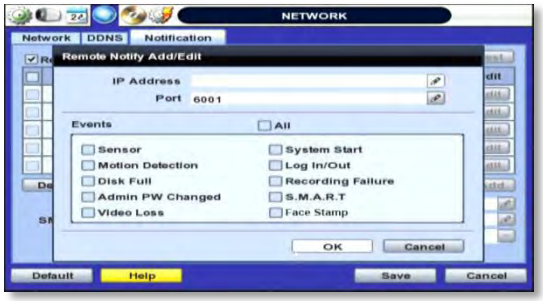
4.4.3 Notification

- **Remote Notify**

The system can notify an alarm message to the IP address of Advanced Client Software over the network.

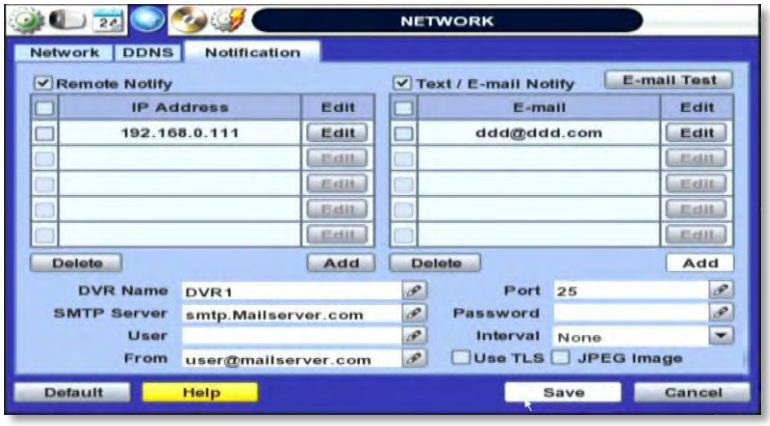
User can choose from a selection of different kinds of alarms by pressing “ADD.” Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off. If you click box of Face Stamp to get notification.





- **E-Mail Notify**

The system can send notification to an Email address or Advanced Client Software and the Central Management System over the network. User can choose from a selection of different kinds of alarms by pressing “ADD.” Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, Power On/Off and FaceStamp. By clicking “Use TLS”, users can use a public email address such as Yahoo, Google, Hotmail accounts. Type DVR name in the “DVR Name” box. The DVR name will appear in the email so that users can recognize which DVR sent an email.



NOTE Configuration’s first priority is always given to “Schedule Setup ” of the “RECORD” menu.
Thus, the system will not send alarm message or email notification upon motion alarm or sensor even though user marks the checkbox of above event selection, unless user sets the “Schedule Setup” in the “RECORD” menu.
For example, if user sets “Continuous” only for “Schedule Setup ” of the “RECORD” menu and marks the “All” checkbox in “REMOTE NOTIFY”, then the system will not send alarm messages. In this case, user has to set “C + M”, “MOTION”, “SENSOR”, “C+ S” or “C+M+ S” for REMOTE NOTIFY or E-Mail NOTIFY to function properly.

4.5 Backup

4.5.1 Backup

Users can archive a video clip recorded for a certain period on a selected channel or channels as shown below.

Connect an appropriate USB memory device, like USB thumb drive, USB HDD, or a built-in CD or DVD burner and press "SCAN" button to get the system to recognize it before archiving. Necessary file size will be shown before burning.

NOTE	Backup device shall be a well-known major brand of USB thumb drives formatted by FAT/FAT32 for proper backup.

NOTE	User can easily backup video in "Quick Backup" during video playback. Refer to section 3.5 for quick backup details.

NOTE	User can click the "Calculate" button to learn the backup file size before executing backup.

NOTE	User can rename the backup file name before starting backup process and also put a password in the backup file for security purpose. In order to playback the file, user should input the password.

4.5.2 Backup Video Retrieve

There will be a single file after archiving, if “Auto Player” was selected.

User can double click “BackupPlayer.exe” file to open the video data file (PSF format) in the folder.

User can print out, capture a still image, zoom out, or make an ASF file format, by using the icons located on top of the player window.

NOTE User also can play the backup-video clips by Advanced Client Software and Central Management System.

4.6 Quick Setup

Quick Setup helps user make simple configuration for recording resolution, entire recording speed by frame, recording mode, and recording periods.

The system will put the first priority for configuration on this quick setup and will follow this rule regardless of configurations set in other menus. Users should not fill in the checkbox of Use Quick Setup if he/she wants to utilize full system configuration defined in the other menus.

NOTE Quick setup must be deactivated if the user requires configuration from the other menus.

NOTE After the user marks "Use Quick Setup" to define settings, the system will ignore all other configurations set by full menus.

5 WEB SURVEILLANCE

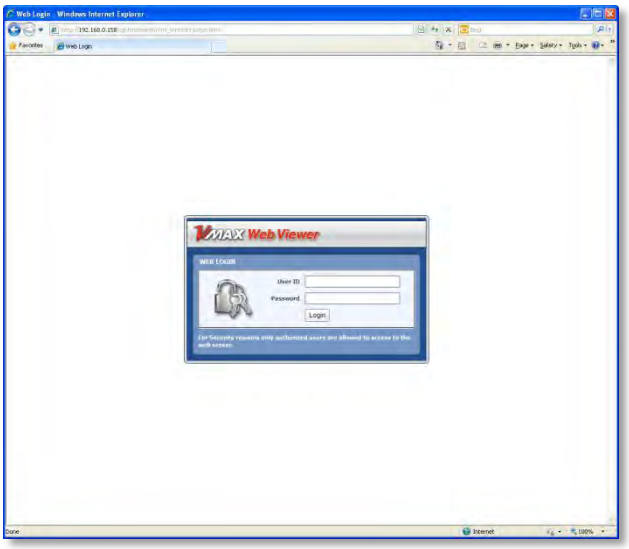
The VMAX960H DVR has a built-in web server.
Using an ordinary web-browser over a network, users can always stay connected to the system for live monitoring, playback, or remote configuration without installing any remote client software.

5.1 Web Login

The user is required to input the correct IP address in the web browser after making the web port available in the router. Please note, if you are connecting to the DVR from a remote network (via the internet), you must port-forward the corresponding ports in your reouter before you can access your DVR.

For more information, see the Appendix section, and consult your Installer or Internet Service Provider.

After allowing the download of the Active-X file (see page 58 for more information), users can find the login page view seen below. Default USER ID is “admin” and No password.



It is recommended to use an Internet Explorer web page.
To open the DVR’s web viewer on a Google Chrome web viewer, please install the IE Tab add on option.

Then, simply enter the DVR’s IP address or DDNS address in the address bar and click on the on the tool bar of the web viewer.

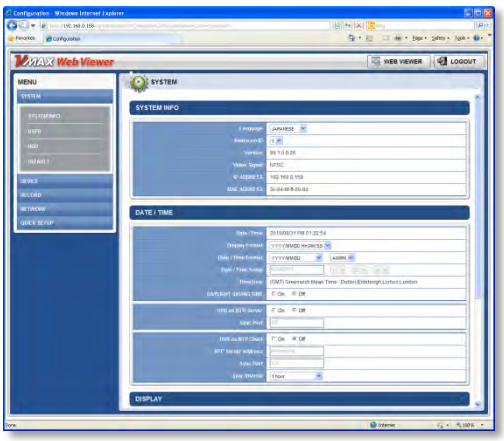
5.2 Web Configuration

Menu of Web Configuration

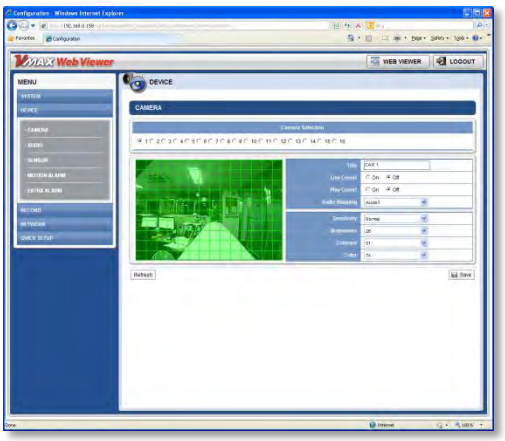
Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	LIVE STREAM
	PANIC RECORD
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
QUICK SETUP	QUICK SETUP

After logging in with the right ID and password, users can make various configuration changes in the Web Configuration window seen below. This Web Configuration menu is only available to the "admin" account.

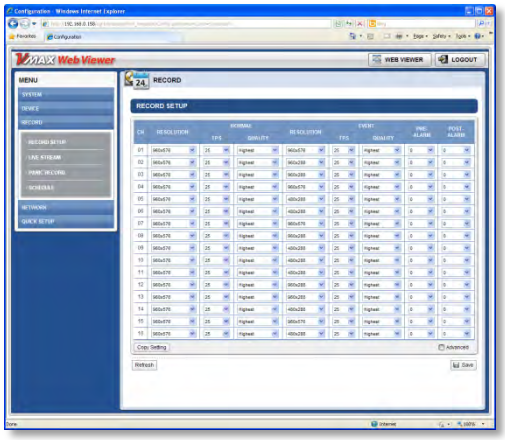
[System]



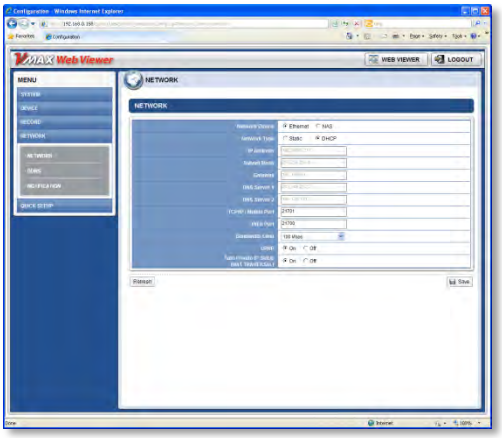
[Device]



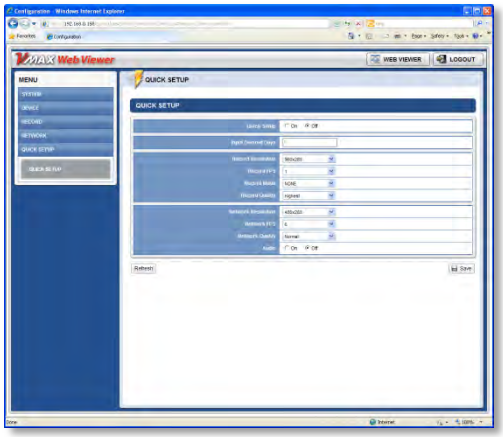
[Record]



[Network]



[Quick Setup]



NOTE This web CGI screen is directly supported from the built-in web server in the DVR, regardless of Internet connection.

NOTE <System Reboot> enables user to reboot the system without any changes to the setup.
When the network is disconnected due to abnormal operation of the system, user can use this function and try to reconnect. However, the IP number assigned to the system may be changed due to the DHCP mode.

5.3 Web monitoring

The first time you access your DVR via the Web viewer, you will be asked to install Active-X file before monitoring live video. Please follow the installation process to complete the Active-X installation. Without it, you will not be able to view video from any of the DVR's channels.

Internet Explorer - Security Warning
Do you want to install this software?
Name: WebACS.cab
Publisher: Kaltech Enterprises Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Setup - WebACS
Welcome to the WebACS Setup Wizard
This will install WebACS 1.0.0.12 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

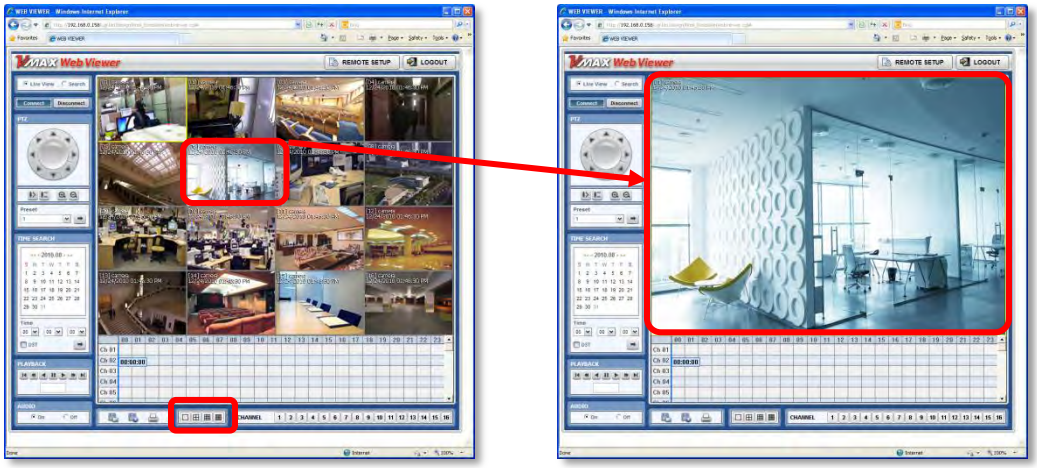
Setup - WebACS
Completing the WebACS Setup Wizard
Setup has finished installing WebACS on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

[Web Active X Install]

User can get into web monitoring after log in as shown below. In order to connect to DVR, select the vewieing mode (Live/ Playback) and click " Connect " located at the top left corner.

No.	Title	Function
1	Connection Mode	Select to view the DVR in Live or Playback Mode.
2	Connection Option	Select to Connect or Disconnect from the DVR.
3	PTZ	PTZ control options, including: virtual direction arrows, zoom and focus, and preset.
4	Calendar	Date & Time search.
5	Playback Controllers	First data, fast rewind speed, play rewind, pause, play, fast forward speed, last data.
6	Audio	Enable/ Disable audio.
7	Export Options	Export a still image, export a video, or print a still image with notes of a selected channel.
8	Display Options	Select single, 4-channel mode, 9- channel mode, or 16-channel mode (16-channel display will not be available on 8-channel models).
9	Channel Selection	Select manually a specific channel to go to single channel mode.
10	Time bar	In playback mode, indicates available recorded video for each channel for the 24 hours of the selected day.
11	Time indicator	Use the time indicator line to update playback video from a selected channel or multi-channels.
12	Main Display Area	View live or playback from the selected cameras.
13	Remote Setup	Will open remote setup option (See 5.2 Web Configuration). Available for admin users only.
14	Logout	Exit connection from the DVR.

User can monitor live video in 1, 4, 9 or 16 screen modes. If user wants to see single channel in full screen, double-click on the live video screen. User can change to single mode by clicking the mode icon located at the bottom left.

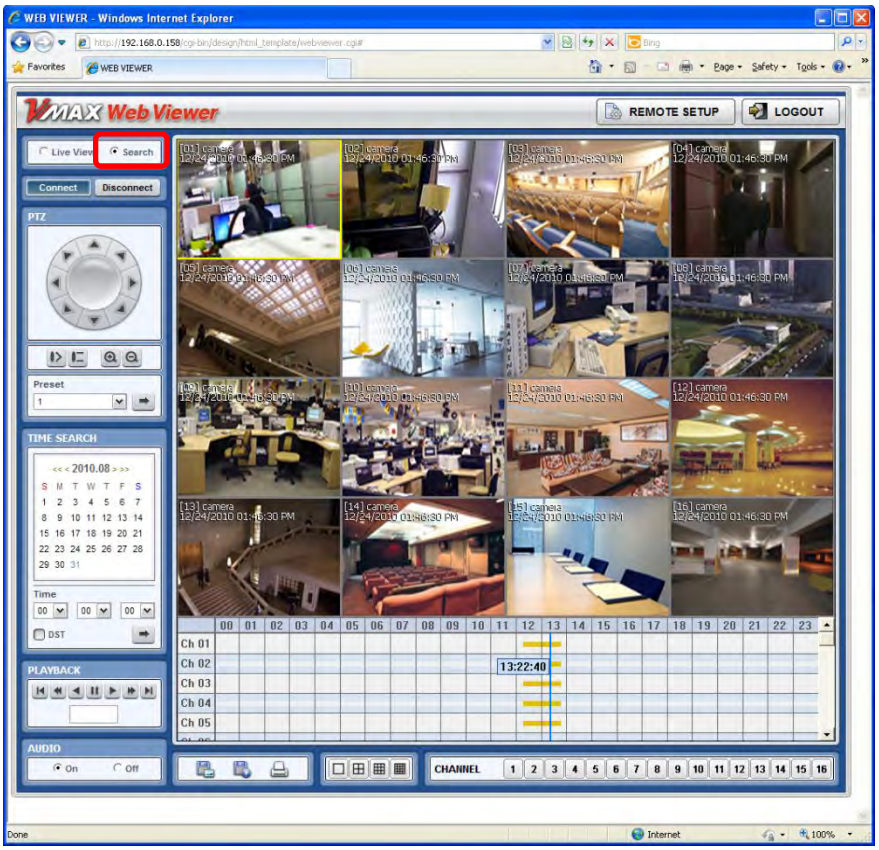


NOTE The image resolution in "Live monitoring" in this web browser can be adjusted from the DVR's 'Live Stream' sub-menu under the 'Record' Setup Menu.

NOTE If live image is not properly shown on IE web browser due to network capabilities or low bandwidth, it is recommended to close and re-open the IE web browser.

5.4 Web Playback

Users can remotely playback the DVR images by clicking “SEARCH” button in the middle of bottom window. In order to connect to DVR, the user has to click “ Connect ” button which is located at the top left corner.



- **Playback Time**

Select the date and time on Time Search, located at the middle of left side of window, and click button.

- **Playback Icon**

Play/Pause is toggled and playback speed is shown on the left box.

- **Play DST**

Check this box to play overlapped images during DST (Daylight Saving Time) period.

For further details, please refer to Section 3.7 (DST Setting and Image Playback)

- **Intelli-Search Bar**

User can move the blue vertical line to the time that user wants to search.

The colors of the time bar are different by each recording mode. Please, refer to Section 4.3.2 for details on color

Chapter 2

CMS CLIENT SOFTWARE USER MANUAL

6 CMS USER GUIDE

6.1 PC REQUIREMENT

Recommended PC Requirement

OS	Windows XP, Vista, 7
CPU	Pentium Dual core 1.8Ghz or higher
VGA	1024X768, 256MB supporting DirectX
RAM	1GB
HDD	20MB for installation, 10GB for Remote Backup

Minimum PC Requirement

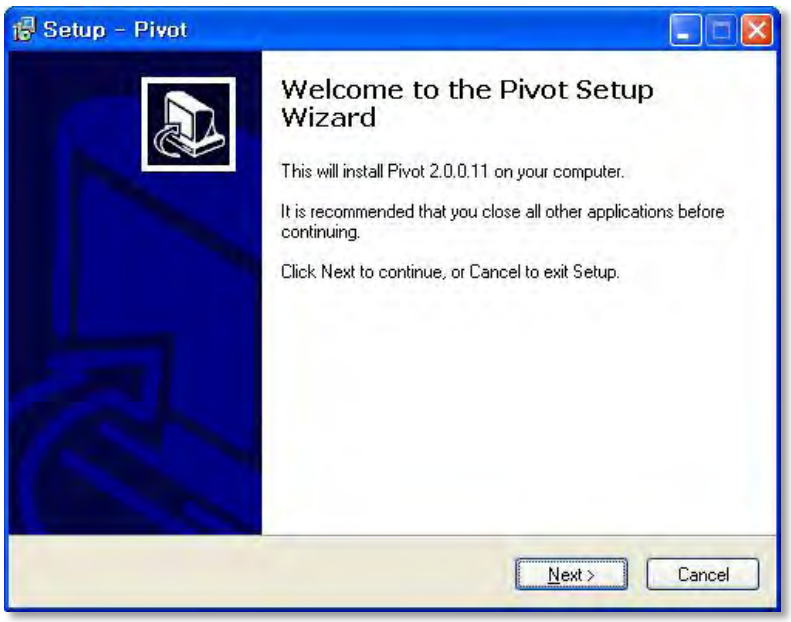
OS	Windows XP, Vista
CPU	Pentium 4, 2Ghz
VGA	1024X768, 64MB 24bit color graphic card
RAM	1GB
HDD	20MB Free Space

6.2 INSTALL

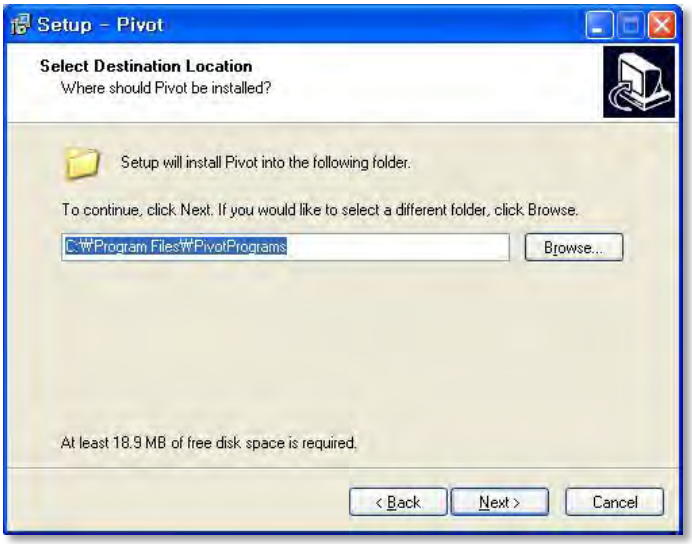
Run Central Management Software Setup.exe saved on the included CD.

When clicked, the Setup Menu will appear.

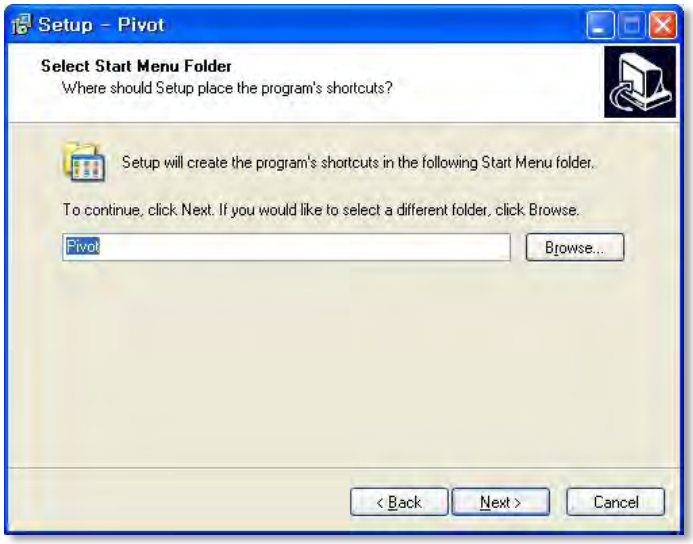
Follow the setup instructions to complete the installation.


Setup - Pivot
Welcome to the Pivot Setup Wizard
This will install Pivot 2.0.0.11 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

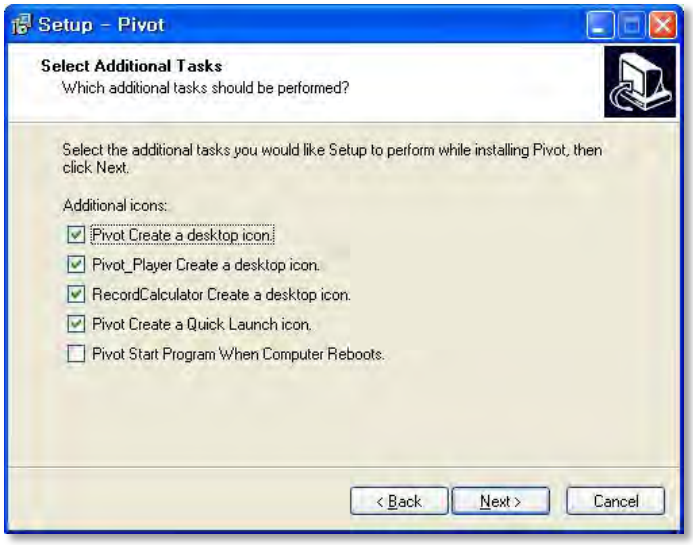
Press Browse... if you want to install the program in a different directory.


Setup - Pivot
Select Destination Location
Where should Pivot be installed?
Setup will install Pivot into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:₩Program Files₩PivotPrograms
Browse...
At least 18.9 MB of free disk space is required.
< Back
Next >
Cancel

Press Next > to move to the next screen.

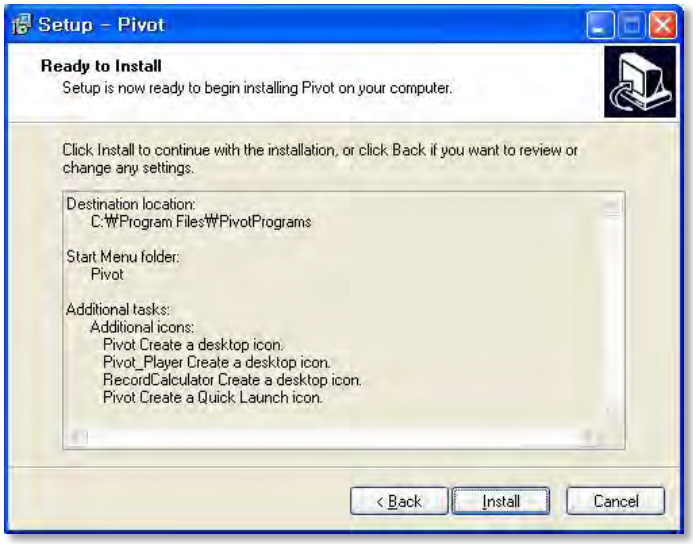

Setup - Pivot
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Pivot
Browse...
< Back
Next >
Cancel

Press Next > to move to the next screen.


Setup - Pivot
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Pivot, then click Next.
Additional icons:
Pivot Create a desktop icon.
Pivot_Player Create a desktop icon.
RecordCalculator Create a desktop icon.
Pivot Create a Quick Launch icon.
Pivot Start Program When Computer Reboots.
< Back
Next >
Cancel

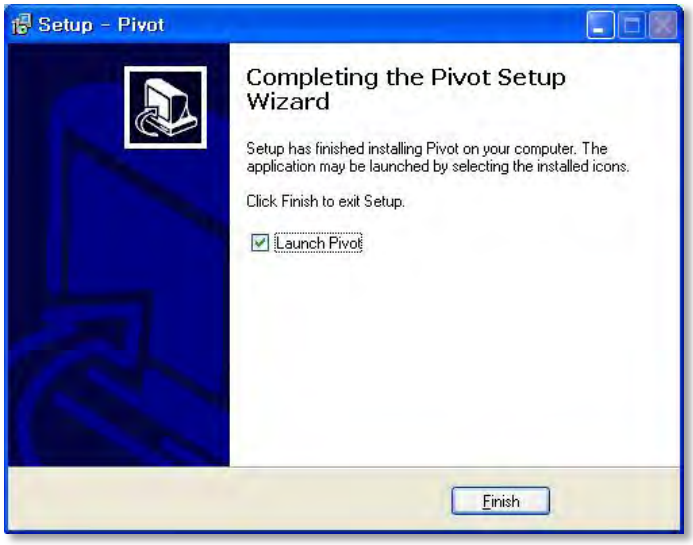
Select what Icons and shortcuts you wish to install on your desktop.

Press Next > to move to the next screen.


Setup - Pivot
Ready to Install
Setup is now ready to begin installing Pivot on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:₩Program Files₩PivotPrograms
Start Menu folder:
Pivot
Additional tasks:
Additional icons:
Pivot Create a desktop icon.
Pivot_Player Create a desktop icon.
RecordCalculator Create a desktop icon.
Pivot Create a Quick Launch icon.
< Back
Install
Cancel

Select Install to begin installation. When the installation is complete, the below message will appear.

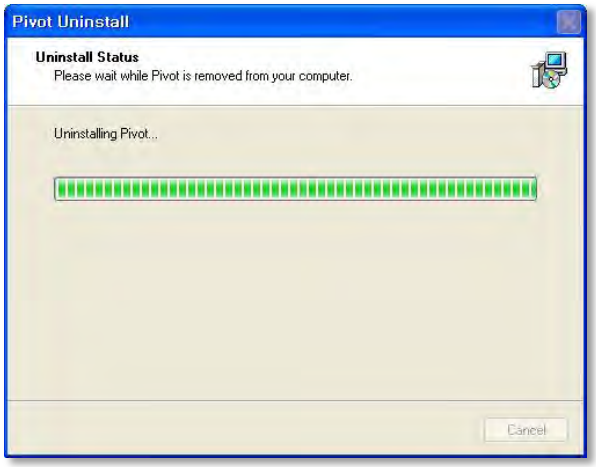
Select whether you want to launch the software and select "finish".


Setup - Pivot
Completing the Pivot Setup Wizard
Setup has finished installing Pivot on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch Pivot
Finish

6.3 UNINSTALL

To uninstall CMS, press **UNINSTALL CMS** from the Start Menu of your PC.

A window will appear in Windows7 or Windows Vista. Press **YES** to begin the process.



When the process is complete, the below message will appear.

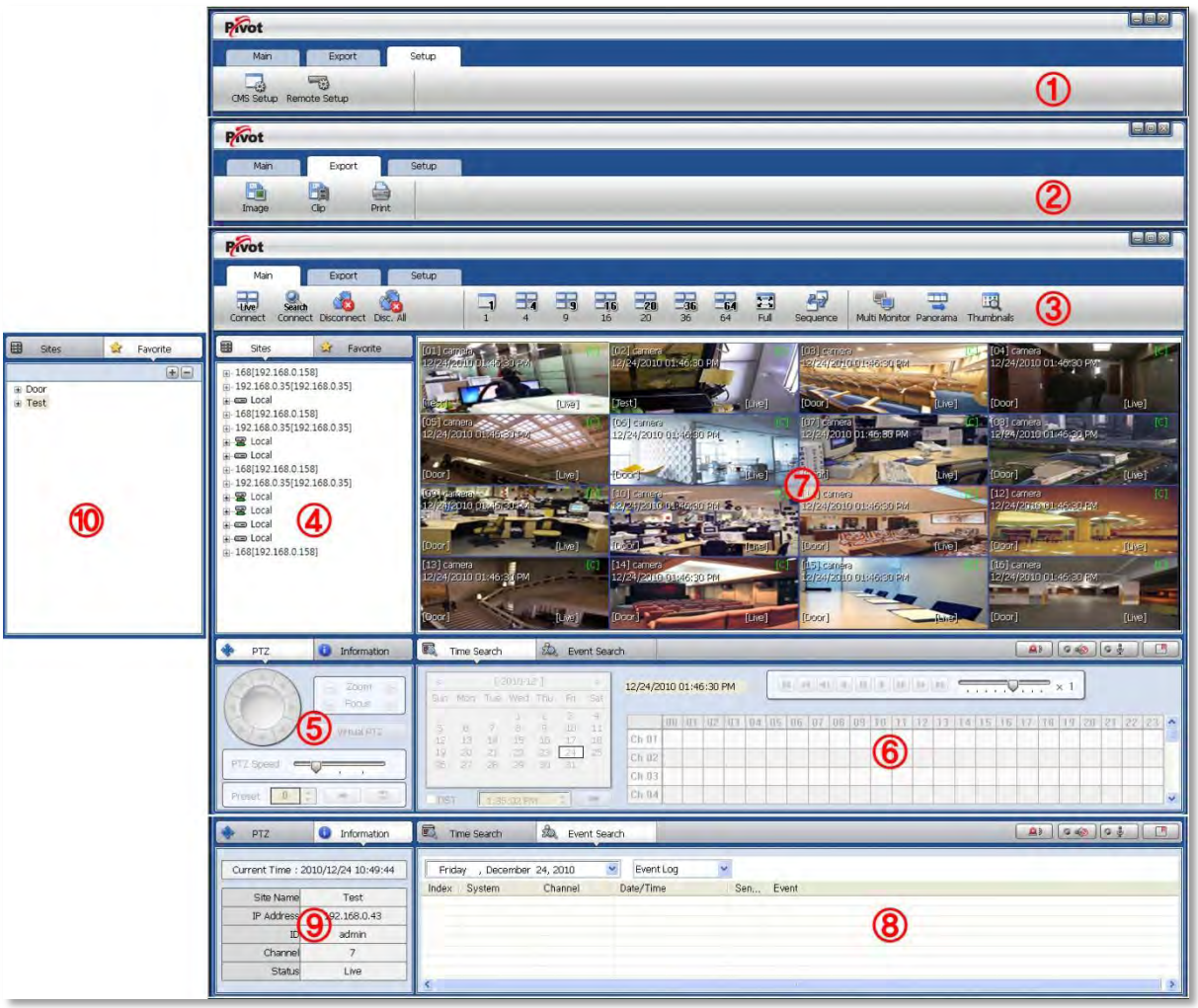
6.4 BASIC OPERATION

Click on the **CMS** icon on the Desktop or click **START** on Windows PC and go to the CMS Folder.

6.4.1 LOG IN

The default ID is Administrator, and there is no default password. The administrator account has the highest level of authority on the CMS.

6.4.2 SCREEN LAYOUT



No	Item	Description
1	Main Toolbar (Setup Tab)	The Main Toolbar has three (3) selectable tabs named "Main", "Export" and "Setup". In the Setup tab, there are CMS setup and Remote setup.
2	Main Toolbar (Export Tab)	In the Export tab, users can save JPEG, AVI and Print images of selected video.
3	Main Toolbar (Main Tab)	In the Main tab, users can connect to Live and Search views, disconnect, change display mode and sequence, Panorama Search and Thumbnail Search.
4	Site List Panel	All of the registered sites in the setup tab are shown in the site list. Simply drag and drop the desired site to the display screen to connect to the site.
5	PTZ Panel	Enables users to control a PTZ camera, in Live mode.
6	Search Panel	In the Search mode, the recording information for each channel will be displayed, based on a selection of a specific date in the calendar.
7	Display Panel	This is the area where live view and search view are displayed.
8	Event Search Panel	CMS can display all the events setup on each individual DEVICE. These events will be listed in this panel. An event data can be searched by double-clicking on an event.
9	Information Panel	Shows the current time and site information of the selected channel.
10	Favorite Panel	Create favorite site for quick access to the sites frequently viewed.

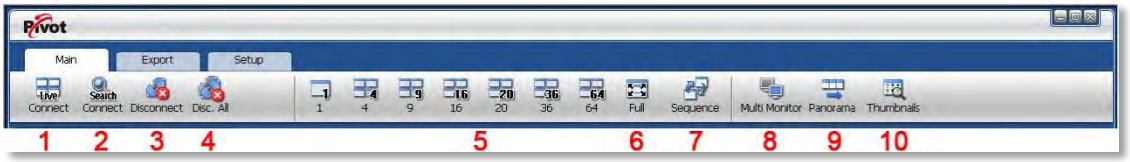
6.4.3 MAIN TOOLBAR (SETUP)

No	Item	Description
1	CMS Setup	Register sites, setup user authority, and setup other CMS properties.
2	Remote Setup	Access the setup menu of the DEVICE remotely and change the settings.
3	Windows Exit	Minimize/Maximize the CMS Window or close the CMS program.

6.4.4 MAIN TOOLBAR (EXPORT)

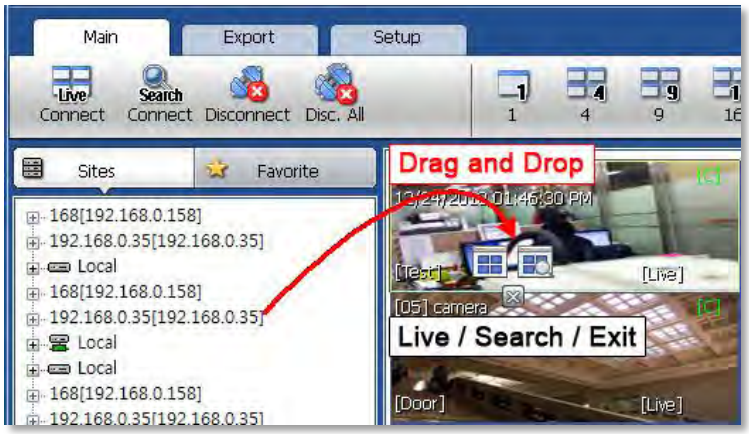
No	Item	Description
1	Image	Capture an image of the selected (focused) channel.
2	Movie	Save the selected channel in ASF format movie file.
3	Print	Print the selected channel.

6.4.5 MAIN TOOLBAR (MAIN)



No	Item	Description
1	Live	Connect to the selected site in Live mode.
2	Search	Connect to the selected site in Search mode.
3	Disconnect	Disconnect the single channel selected.
4	Disconnect All	Disconnect all of the connected sites and channels.
5	Display Mode	Choose the display mode from single, 4 split, 9 split, 16 split, 20 split, 36 split, 64 split.
6	Full	Shows Full screen display.
7	Sequence	Sequences the different channel displays.
8	Dual Monitor	Create an additional display window.
9	Panorama	Show frame by frame display for a selected single channel in Search mode.
10	Thumbnails	Thumbnail search for a selected single channel in Search mode.

6.4.6 SITE LIST



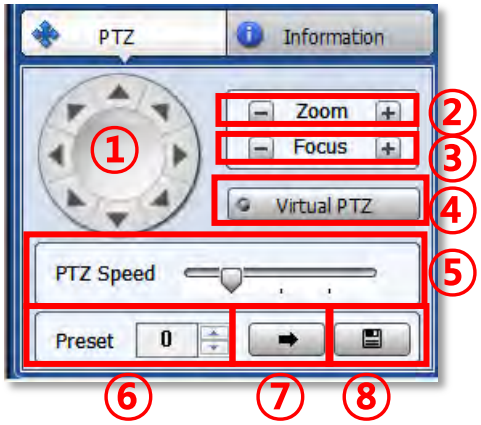
The Site List displays all of the DEVICES that are currently setup for remote connection with the CMS application.

To select and view a desired camera or device, simply drag it from the site list panel onto the viewing area. Then, select the options Live or Search ( ).

If a DEVICE site is dragged onto the viewable area, then the selected DEVICE or all cameras from the DEVICE will be displayed.

6.4.7 PTZ CONTROL

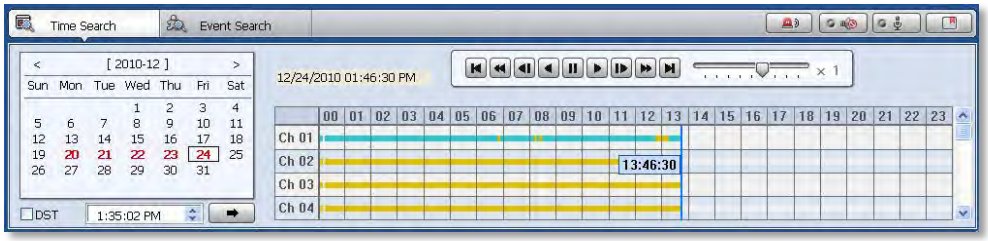
PTZ camera control is only available in Live mode.



No.	Button	Description
1	Navigation Key	8 directional arrows allow the user to move the PTZ camera. The PTZ Camera is moved when one of these arrows are pressed to the direction desired, and stops the movement if the mouse button is released.
2	Zoom	Zoom In and Zoom Out.
3	Focus	Adjust the focus of the PTZ camera.
4	Virtual PTZ	If Virtual PTZ is activated, it enables users to control the PTZ camera's movement, Zoom and Focus. PTZ can be controlled with the mouse on the channel screen directly.
5	PTZ Speed	Adjust the PTZ camera response speed. Getting Faster as moves to the right.
6	Preset	Set PTZ presets on current view.
7		Go to the preset location.
8		Save the preset location..

6.4.8 SEARCH

The Search panel is activated only in Search Mode.



When you connect to a site in Search Mode, dates with recorded data will be highlighted in red. Select a specific date in the calendar and then the recording information will be shown in the table.

Press (Go button) to start playback from a selected time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

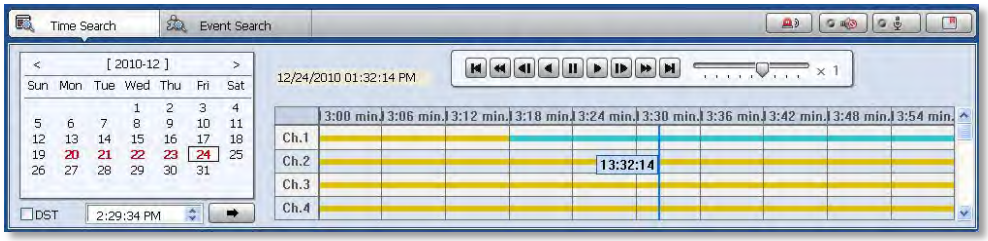
Recording Modes

No Record	White
Continuous (Yellow Color)	
Panic (Red Color)	
Alarm (Orange Color)	
Motion (Green Color)	

Click the time or move the time bar to the time you want to playback in the search panel.

For a more detailed search as seen below, double-click the time that you want to jump.

Detailed search is available on a 6 minute basis as shown below.



Playback Control Panel

No.	Button	Description
1		Go to First.
2		Forward Playback : Decrease the speed / Reverse Playback : Increase the speed.
3		Step Forward.
4		Reverse Playback.
5		Pause.
6		Forward Playback.
7		Step Backward.
8		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed.
9		Go to Last.

Audio control

(Audio On/Off): Turn On or Off the Audio channel.

Two-way Audio: Two-Audio between the CMS and DEVICE.

Bookmark: Add the selected channel to your bookmark list.

6.4.9 DISPLAY

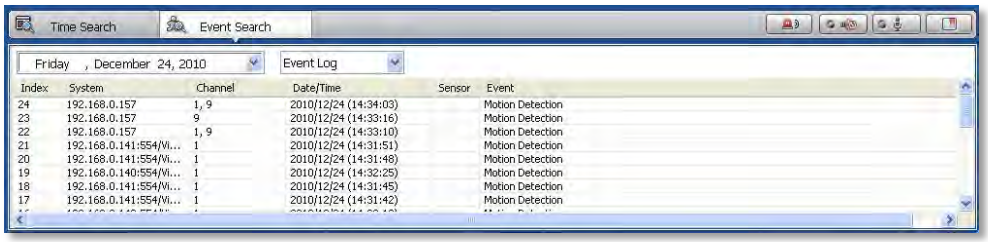
In live mode, the text LIVE will be displayed in white, and the channel will be bordered in blue.

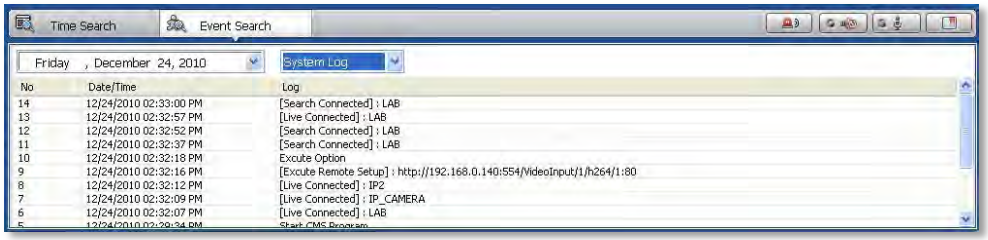
In search mode, the text SEARCH will be displayed in red, and the channel will be bordered in red.

A selected channel will be bordered in yellow. The site name will be shown at the lower left hand corner of the screen.

6.4.10 EVENT SEARCH

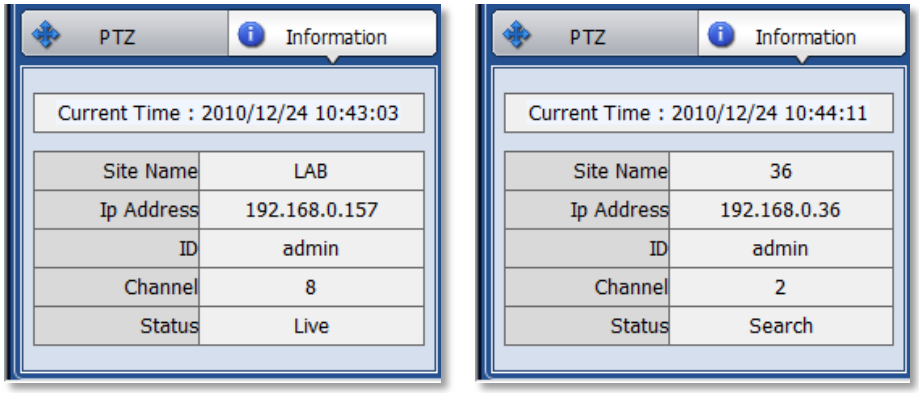
CMS can receive any event data from the DEVICE as shown below.




Time Search
Event Search
Friday , December 24, 2010
System Log
No
Date/Time
Log
14 12/24/2010 02:33:00 PM [Search Connected] : LAB
13 12/24/2010 02:32:57 PM [Live Connected] : LAB
12 12/24/2010 02:32:52 PM [Search Connected] : LAB
11 12/24/2010 02:32:37 PM [Search Connected] : LAB
10 12/24/2010 02:32:18 PM Excute Option
9 12/24/2010 02:32:16 PM [Excute Remote Setup] : http://192.168.0.140:554/VideoInput/1/h264/1:80
8 12/24/2010 02:32:12 PM [Live Connected] : IP2
7 12/24/2010 02:32:09 PM [Live Connected] : IP_CAMERA
6 12/24/2010 02:32:07 PM [Live Connected] : LAB

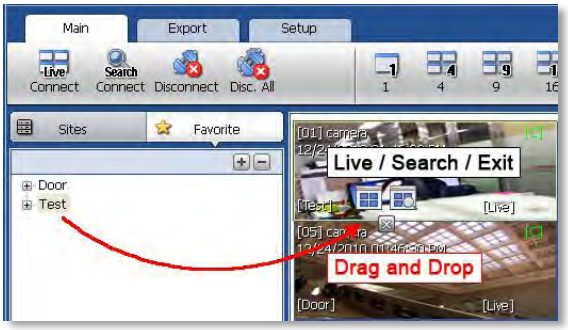
You can select a desired date to view the event list for the selected date.
You can choose either event log or system log.
Start the playback by double-clicking the Index number of each even list.
The system log will show CMS start/end, live/search, option, remote setup, image/movie export etc.

6.4.11 INFORMATION



The current date/time, site name, IP address, ID, channel and Live/Search status will be shown for a selected channel.

6.4.12 FAVORITE



Cameras currently displayed on the screen can be added, deleted and edited as a favorite site group.

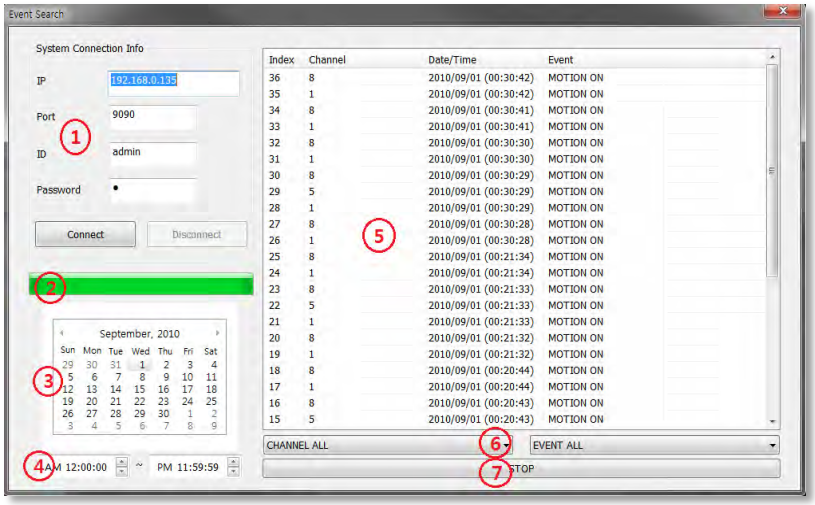
Place cameras of DEVICE site into a desired channel location of the screen and then click to create a new favorite site group. Then, you can simply place those cameras on the same channel location by drag & drop as shown below. In order to delete a favorite site, click .

6.5 CMS FUNCTIONS

6.5.1 EVENT SEARCH

When you right click on a site in the site list, a quick access menu will appear.

Select **EVENT SEARCH** to run Event Search.

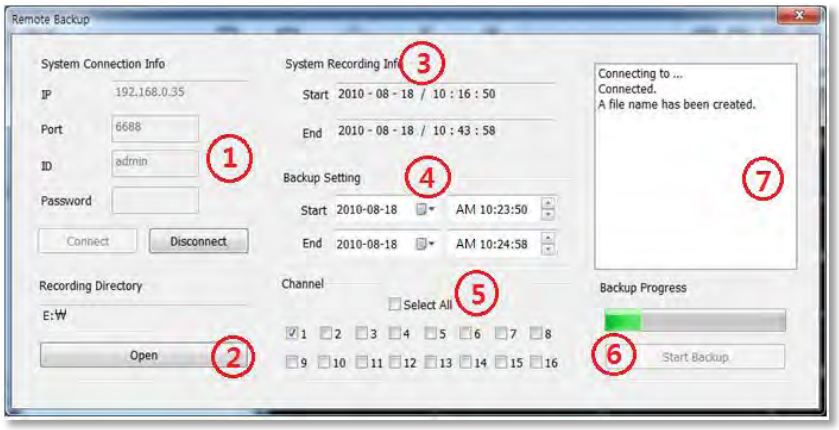


No	Item	Description
1	System Connection Info	The information of the DEVICE you are connected to will be filled out automatically.
2	Event Download Status	Right after connecting to the DEVICE, event information will be downloaded automatically. The download progress bar will be shown.
3	Calendar Search	If there is an event in the selected date, the date will be highlighted. Select a specific date to start event search.
4	Interval Setup	Set the start time and the end time to Search events.
5	Event List	When a desired date is chosen, the event list of the desired date will be shown on the list.
6	Channel/Event Filter	Event information can be sorted by a channel or event type.
7	Start/Stop Search	Start/Stop Search button.

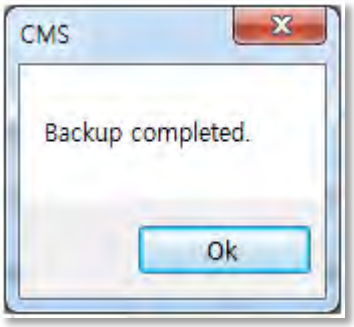
6.5.2 REMOTE BACKUP

When you right click on a site in the site list, the quick access menu will appear.

Select **REMOTE BACKUP** to run Remote Backup.



No	Item	Description
1	System Connection Info	The information of the DEVICE you are connected to will be filled out automatically.
2	Recording Directory	Decide the recording directory to backup.
3	System Recording Info	Displays the start and end time of the recorded data in the system.
4	Backup Setting	Setup the start and end time of the data to backup.
5	Channel	Select the channels to backup.
6	Backup Progress	Backup Progress bar indicates the backup process status.
7	Backup Status Window	Displays the backup status in text message.

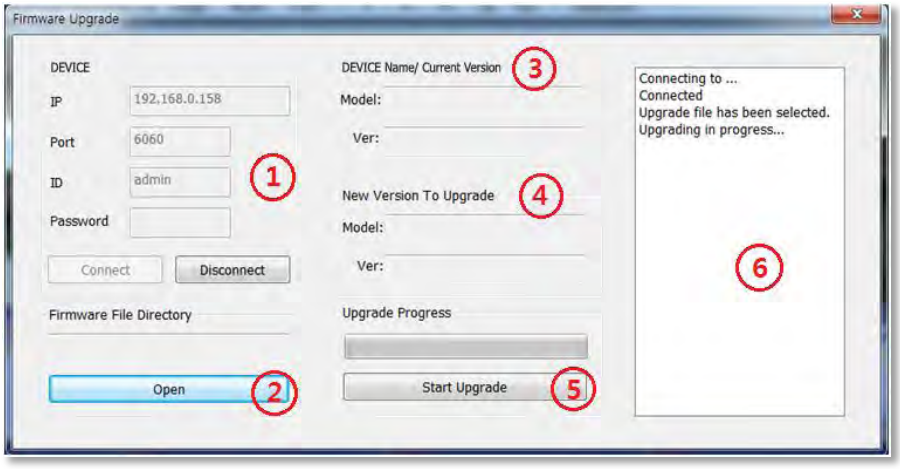


When the backup process is completed, “Backup Completed” message will appear.

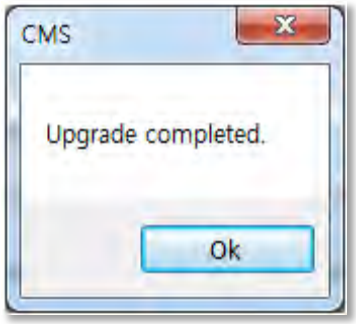
6.5.3 FIRMWARE UPGRADE

When you right click on a site in the site list, the quick access menu will appear.

Select **FIRMWARE UPGRADE** to run Firmware Upgrade.



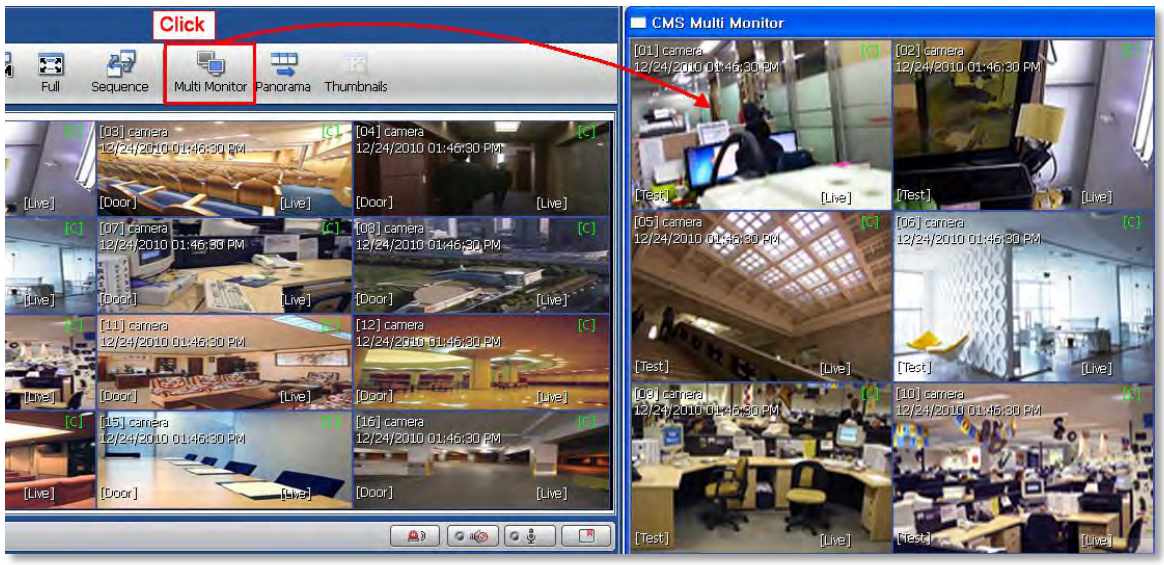
No	Item	Description
1	DEVICE Connection Info	Input the information of DEVICE you are connected to.
2	Firmware File Directory	Select the firmware file directory to upgrade.
3	DEVICE Name/ Current Version	Displays the current DEVICE Name and Firmware Version.
4	New Version to upgrade	Displays the new DEVICE Name and Firmware Version.
5	Upgrade Progress	Start Upgrade and upgrade progress bar shows the upgrade progress status.
6	Upgrade Status Window	Displays the upgrade status in text message.



When the backup process is completed, "Backup Completed" message will appear.

6.5.4 MULTI MONITOR

Click **MULTI MONITOR** in the Main Toolbar to run the Multi Monitor function.



When you select **MULTI MONITOR**, you will see an additional window with the same split display as the main window. This setup is useful if your monitor center has more than one monitor screen.

6.5.5 PANORAMA

Click **PANORAMA** in the main tool bar to run the Panorama View.

In Live mode or Search mode, the panorama view will show frame by frame display of the selected channel.

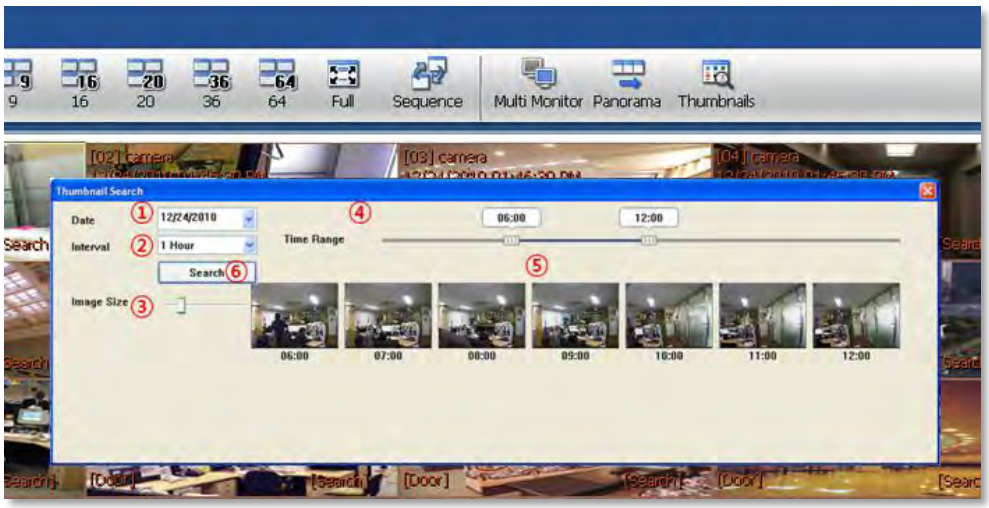
The Panorama view is available for one selected channel at a time.

To return to normal view, click **PANORAMA** again.

6.5.6 THUMBNAIL SEARCH

Click **THUMBNAIL** in the main toolbar to run the Thumbnail Search. This feature is available only in Search mode.

First, select a channel and click **THUMBNAIL.** The Thumbnail Search Pop-up window will come up.



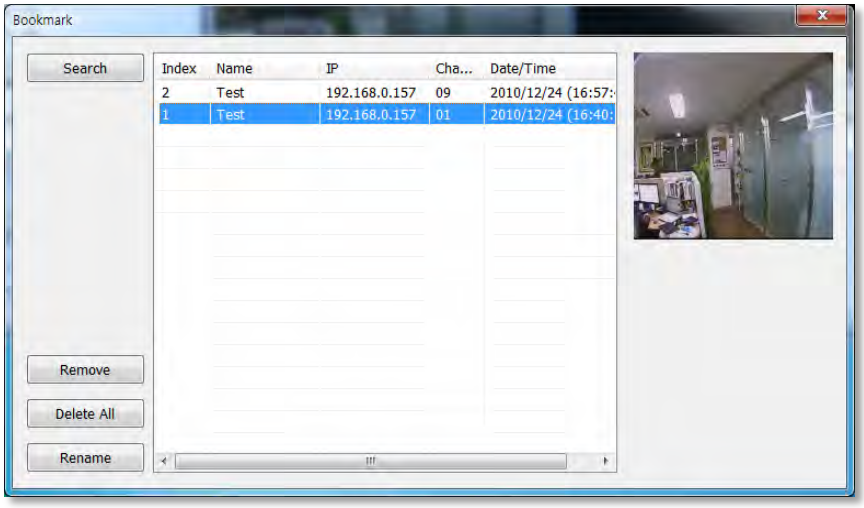
No	Item	Description
1	Date	Use the Calendar to select a desired date.
2	Time Interval	Select the (time interval) to display still shots by a specified time. You may choose 1min, 3min, 5min, 10min, 30min, and 1hour (ex. 1min. means 1 still shot per 1 minute of recorded video data.)
3	Image Size	Adjust the Thumbnail Image size by using the slide bar. Moving the slide bar to the right will increase the image size, and moving it to the left will decrease image size.
4	Time Range	Select the (start time and end time) by using the slide bar.
5	Thumbnail images	Thumbnail images will be shown.
6	Search	Search button.

If you click each thumbnail image, you can search the selected data directly.

6.5.7 BOOKMARK

Click icon in the bottom right corner under the video display screen to bookmark a selected one channel search data.

Once the selected search data is bookmarked, the bookmark data is listed with an image in the bookmark list as shown below.



Select a bookmark list and click search or double click it to search the bookmarked data.

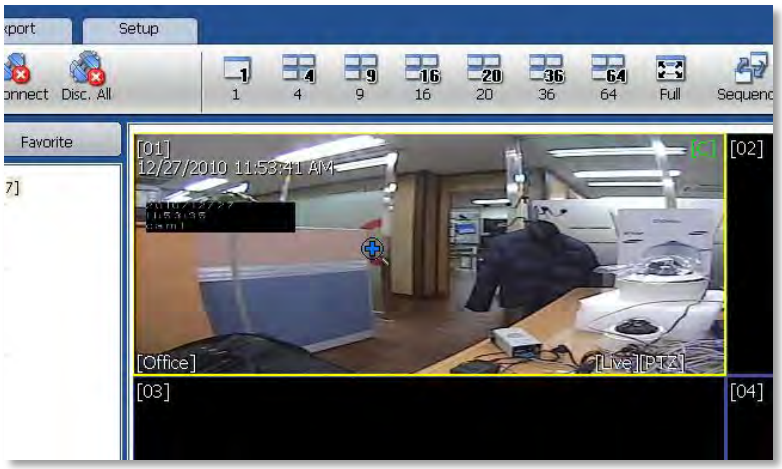
Click **REMOVE** to remove a selected bookmark from the list and click **DELETE ALL** to delete the entire bookmark list.

Click **RENAME** to change the name of a selected bookmark.

6.5.8 VIRTUAL PTZ

If a PTZ camera is selected, click 'Virtual PTZ' to activate 'Virtual PTZ' function.

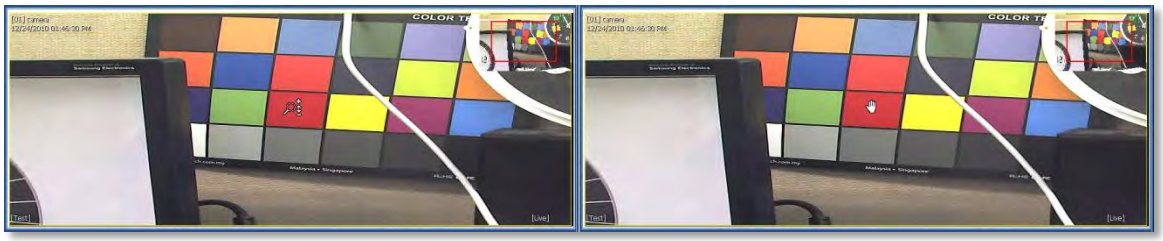
This allows users to control a PTZ camera by using the mouse controls. For example, place the mouse cursor over the PTZ channel and left-click the left, right, top or bottom of the screen to move camera left, right, up or down, respectively.



6.5.9 DIGITAL ZOOM IN/OUT

In Live/Search mode, digital zoom can be activated in a single full screen mode by using the mouse wheel.

Scroll up the mouse wheel, to zoom in. Scroll down the mouse wheel to zoom out on selected channel.

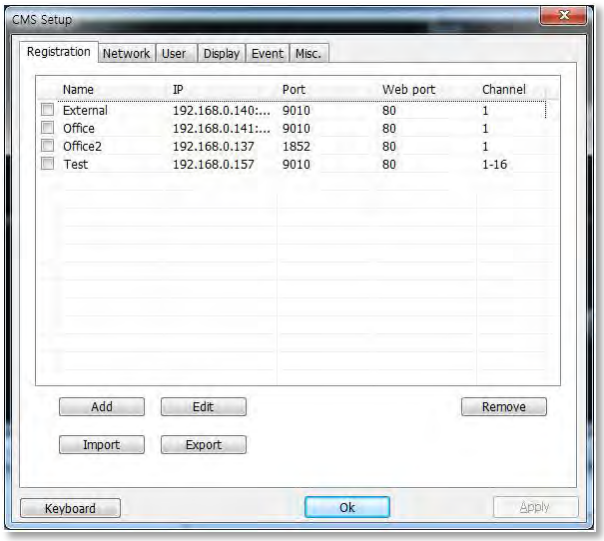


6.6 CMS SETUP

Options for DEVICE Registration, Network, User, Display, Event and other options.

6.6.1 REGISTRATION

Add, Modify, Import, Export or Remove DEVICE site information.



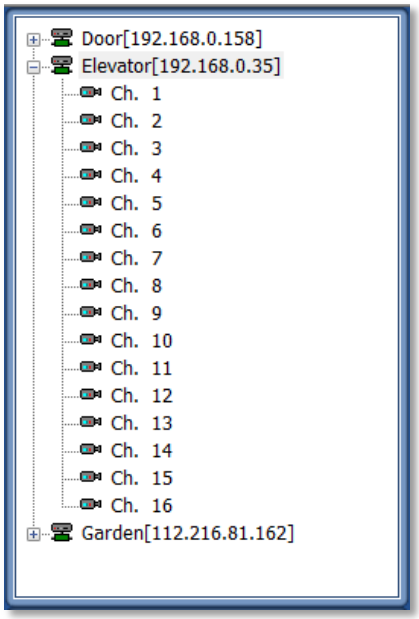
To modify and / or remove DEVICE information, click ADD or REMOVE to amend DEVICE site information.

Click Export to save the current site list and as a file. Click Import to import the file to the site list.

Ex) Adding a new DEVICE site

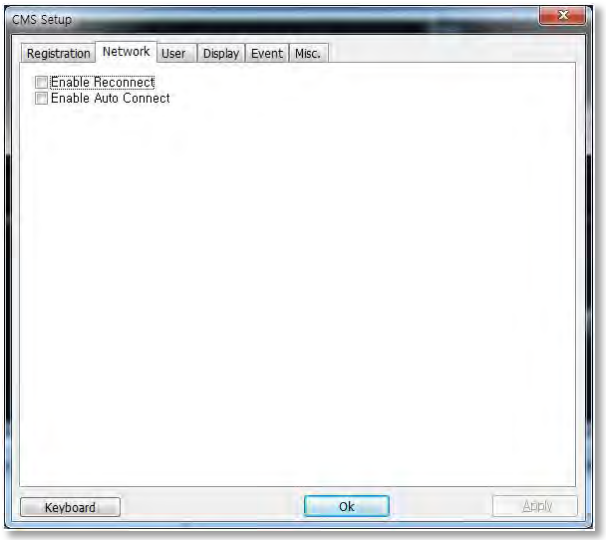
No	Item	Description
1	Name	The name of the site.
2	IP	The site's IP Address.
3	Search	Search all DEVICE sites in the same local network. (UPnP function)
4	Port	Port of the site. (Default: 9010)
5	Web port	Web Port of the site. (Default: 80)
6	ID	User ID to access the site.
7	Password	Password to access the site.
8	Channel	Number of channel of the site. (for example: 16ch DEVICE: 1-16 or specifically: 1,3,5,7,9)
9	Model	Select a DEVICE or DEVICE's model name.
10	Aspect Ratio	Select the displayed Aspect Ratio. (Custom, 1:1, 4:3, 16:9)

Once a new DEVICE site is added, the new DEVICE information will be displayed on the site list panel as shown below.



6.6.2 NETWORK

Enables users to setup RECONNECT and AUTO CONNECT to the network.

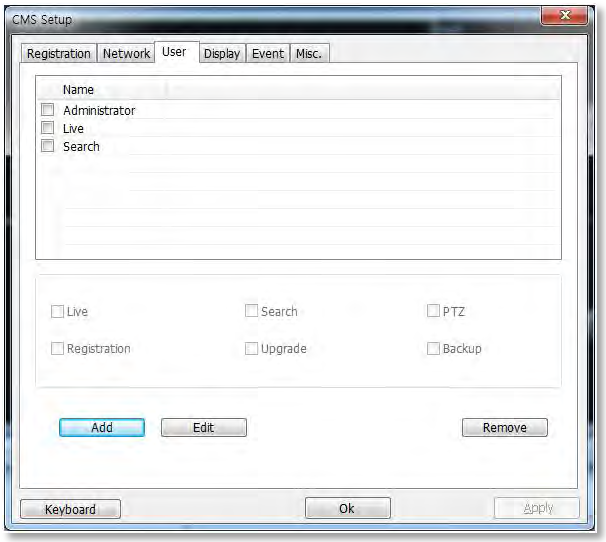


Enable Reconnect: When the network is unstable or disconnected, it will try to reconnect periodically. When the network gets stable again, it's reconnected.

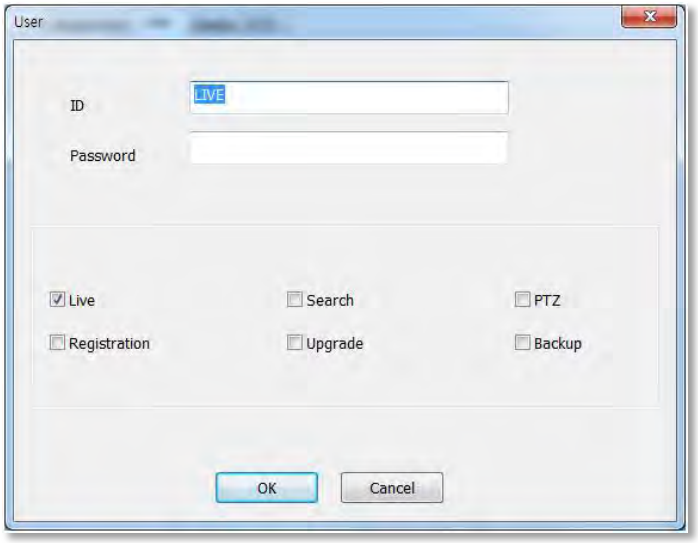
Enable Auto Connect: When you restart the CMS program again, it will reconnect to the last sites seen before logging off.

6.6.3 USER

User authority can be changed by Administrator. "admin" is the built-in account for administrating the DEVICE and CMS program.



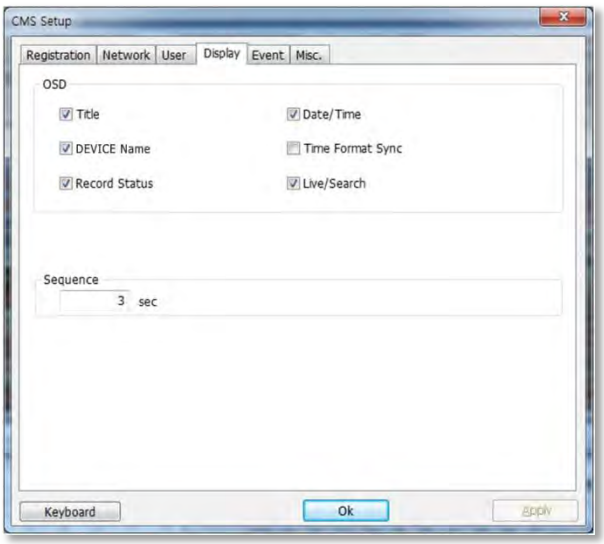
Add and change User authorities.



User authority can be changed by Administrator. Click Add button to create a new user ID and edit the user authority.

6.6.4 DISPLAY

Options for OSD setting. Users can modify what information will be displayed on the video screens.



Title: Turn on/off the DEVICE title and channel number.

Date/Time: Turn on/off the Date/Time of the site.

DEVICE Name: Turn on/off the name of the site.

Time Format Sync: Synchronize the DEVICE time format to CMS.

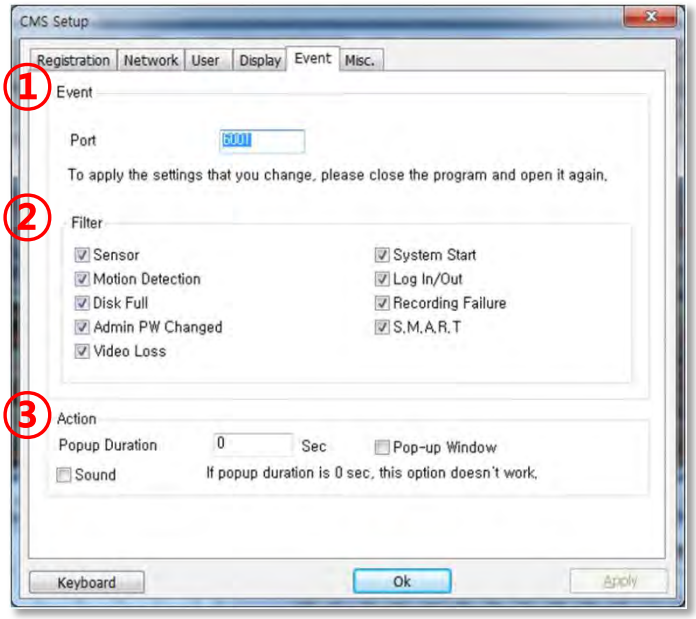
Record Status: Able to turn on/off the Record Status of the site.

Live/Search: Able to turn on/off the Live/Search of the site.

Sequence: Able to set Sequence interval.

6.6.5 EVENT

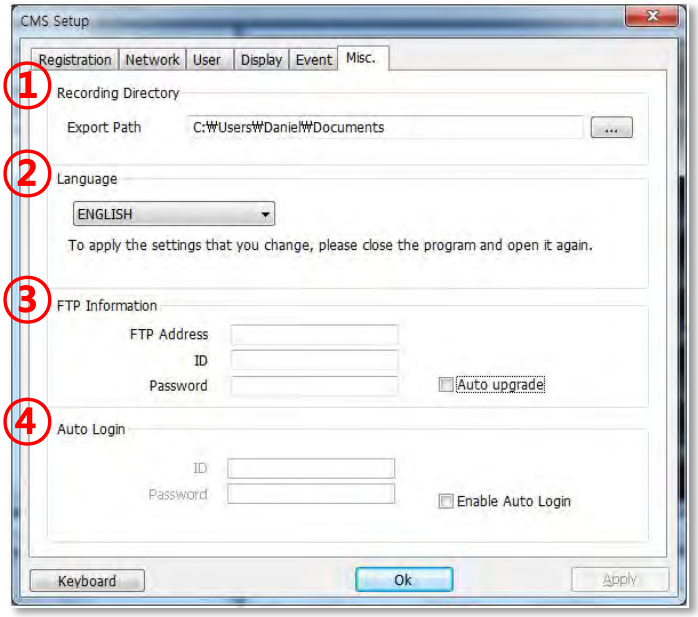
Setup the event port, event type, and popup settings for an event.



No	Item	Description
1	Port	Input the same event port number from the DEVICE setting to receive event notification from the DEVICE.
2	Filter	Select the type of event to receive.
3	Action	Setup the popup duration and enable beep sound.

6.6.6 MISC.

Setup the Recording Directory, Language, Auto Upgrade, and Auto Login.



No	Item	Description
1	Recording Directory	Decide the recording directory to save images.
2	Language	Select a desired language.
3	FTP Information	In order to have Auto Upgrade, input FTP information. Once the FTP setup is done, CMS will detect the latest firmware is in the FTP and start upgrading automatically.
4	Auto Login	If you enable the auto login after inputting ID and Password, next time you login, you don't need to type in the ID and Password again.

Chapter 3

ACS CLIENT SOFTWARE USER MANUAL

7 ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

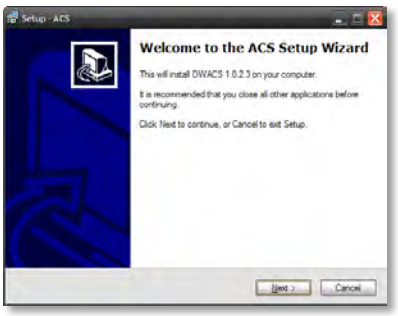
OS	WindowXP, Vista
CPU	Pentium 4, 2Ghz
VGA	1024*768, 64MB 24bit color graphic card
RAM	1GB
HDD	20MB Free space

Minimum System Requirement.

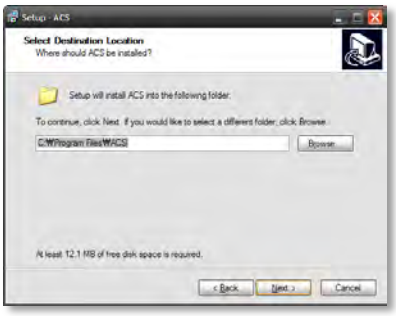
OS	WindowXP, Vista
CPU	Intel Core i5 cpu 2.80GHz
VGA	ATI Radeon HD 512
RAM	4GB
HDD	20MB Free space

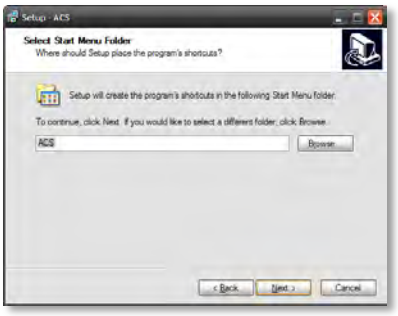
7.2 Install

a. Run Advanced Client SoftwareSetup.exe on the included CD. Follow the setup wizard to complete the installation.

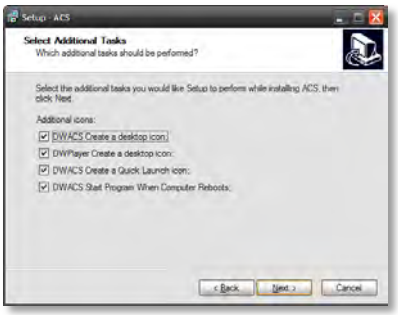

Setup - ACS
Welcome to the ACS Setup Wizard
This will install DWACS 1.0.2.3 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

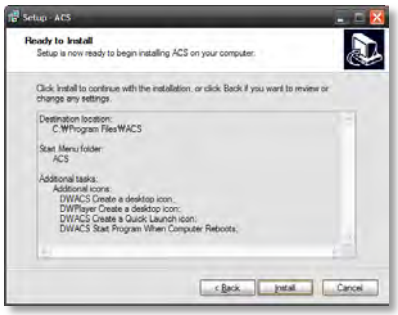
b. Press Browse... to install the program in a different directory. Press Next > to continue.


Setup - ACS
Select Destination Location
Where should ACS be installed?
Setup will install ACS into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\WACS
Browse...
At least 12.1 MB of free disk space is required.
< Back
Next >
Cancel


Setup - ACS
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
ACS
Browse...
< Back
Next >
Cancel

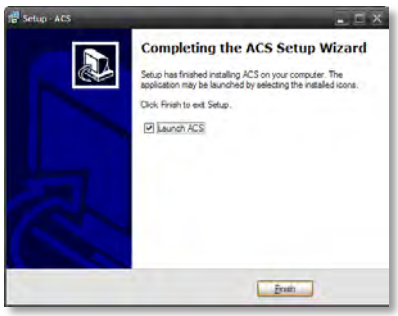
c. Select what Icons and shortcuts you wish to install on your desktop. Press Next > to move to the next screen


Setup - ACS
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing ACS, then click Next.
Additional icons:
DWACS Create a desktop icon
DWPlayer Create a desktop icon
DWACS Create a Quick Launch icon
DWACS Start Program When Computer Reboots
< Back
Next >
Cancel


Setup - ACS
Ready to Install
Setup is now ready to begin installing ACS on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files\WACS
Start Menu folder:
ACS
Additional tasks:
Additional icons:
DWACS Create a desktop icon
DWPlayer Create a desktop icon
DWACS Create a Quick Launch icon
DWACS Start Program When Computer Reboots
< Back
Install
Cancel

d. Select Install to begin installation. When the installation is complete, the below message will appear.

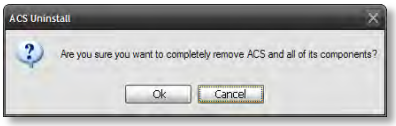
Select whether you want to launch the software and select "finish".

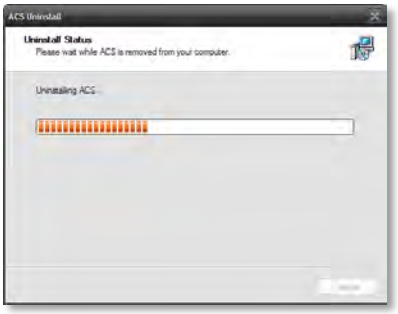

Setup - ACS
Completing the ACS Setup Wizard
Setup has finished installing ACS on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch ACS
Finish

7.3 Uninstall

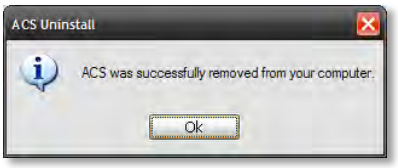
To uninstall ACS, press **UNINSTALL ACS** from the Start Menu of your PC.

A window will appear in Windows7 or Windows Vista. Press **YES** to begin the process.



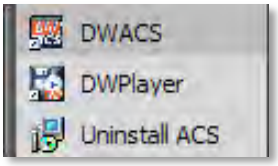


When the process is complete, the below message will appear.



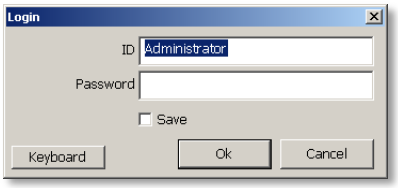
7.4 Basic Operation

Click on the **ACS** icon on the Desktop , or click **START** on Windows PC and go to the ACS Folder.



7.4.1 Log In

The default ID is Administrator, and there is no default password. The administrator account has the highest level of authority on the ACS.



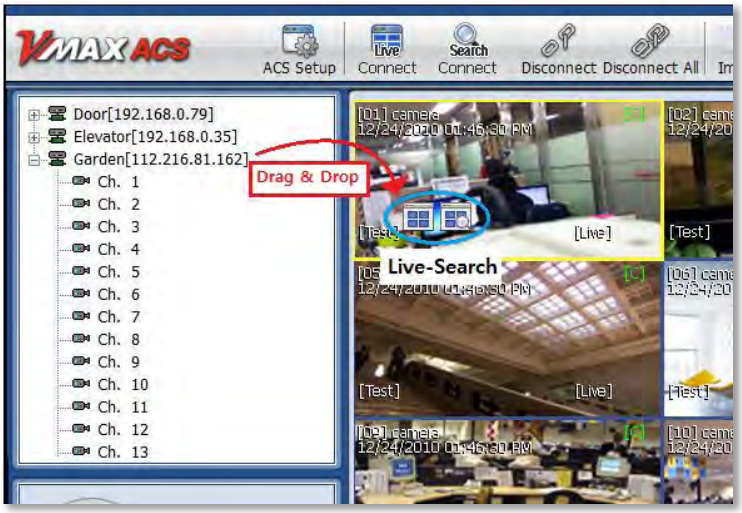
7.4.2 Screen Layout

No.	Item	Description
1	Toolbar	ACS Setting, Live, Search, Disconnect, Image/ Video Export, Screen Mode, Remote Setup
2	Site List Panel	DVR Sites List
3	PTZ Panel	PTZ Camera Control (Live Mode Only)
4	Calendar Panel	Calendar Search
5	Search Panel	Displays recorded data for the selected date, controls playback speed, and audio
6	Display Panel	Displays live and playback image from single and multiple camers as setup by the user
7	Infrmation Panel	Shows the current time and site information of the selected channel
8	Event List Panel	Event list update

7.4.3 Tool Bar

No.	Icons	Description
1	ACS Setup	Option setup for Advanced Client Software
2	Live	Connect to a DVR in Live mode
3	Search	Connect to DVR in Playback mode
4	Disconnect	Disconnect from a selected channel
5	Disconnect All	Disconnect from all channels in the display area
6	Image	Export a selected image. Default file type is JPEG, saves to “My Documents” by default
7	Movie	Save a selected video in .asf format, saves to “My Documents” by default
8	Print	Print still image of single channel
9	Split	Single channel, 4-split channel, 9-split channel, 16-split channel
10	Full	Full screen mode
11	Time/Event	Switch between displaying the Search panel & Event list panel
12	Remote Setup	Configure settings of DVR remotely (administrator user only)
13	Window control	Minimize, Maximize & Exit Advanced Client Software

7.4.4 Site List Panel



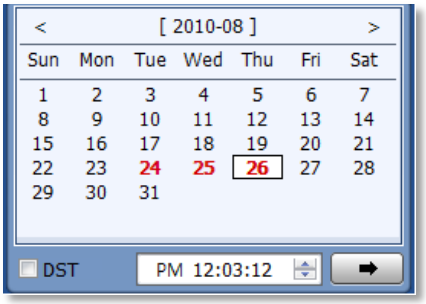
The Site List displays all the DEVICES currently setup for remote connection with the ACS application. To select and view a desired camera or device, simply drag it from the site list panel onto the viewing area. Then, select the options Live or Search from the tool bar, or the little pop-up icons after dragging the device to the vieweing area.
If you want to connect to a specific camera from a device, you can do so by expanding the site’s display in the site list panel, and dragged a specific channel onto the viewable area.

7.4.5 PTZ control Panel

PTZ camera control is only available in Live mode.

No.	Button	Description
1	Navigation Key	8 directional arrows to move the PTZ camera.
2	Zoom	Optical Zoom.
3	Focus	Manually adjust the focus of the PTZ camera.
4	Virtual PTZ	Control the PTZ camera's movement, Zoom and Focus with the mouse on the channel's screen directly.
5	PTZ Speed	Adjust the PTZ camera's response speed. Higher number= faster camera movement.
6	Preset	Set PTZ presets on current view.
7		Go to the preset location.
8		Save the preset location..

7.4.6 Calendar Search



The Calendar Panel is available in Search Mode only.

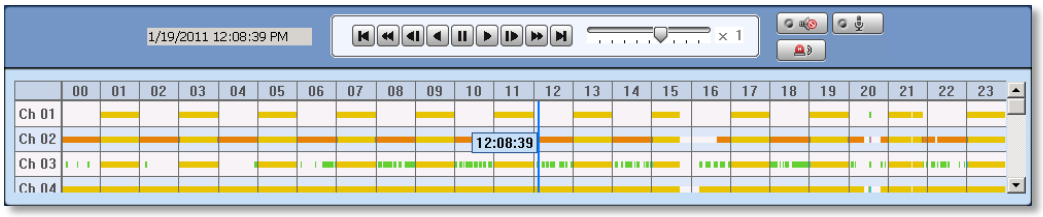
Datea highlighted in red indicate dates with recorded data available.

To start playback from a calendar search:

1. Select the day you would like to see.
2. You can also select specific hour, minute, & second to start playback.
3. If DST is selected, earlier one-hour overlapped video will be displayed first.
4. Press the button to turn all channels in the display area to the selected time.

7.4.7 Search Panel

The Search Panel is only available in search mode.



The Search panel displays the record information for each channel from a date selected in the calendar panel.

Each color represents a different recording mode:

No Record	White
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

To jump to a specific time in the playback using the Search Panel:

1. Click the time or move the time bar to the time you want to playback in the search panel.
2. To “zoom-in” to an hour in the Search Panel, doubl-click on the desired hour. The display time at the top of the Search Panel will display in minutes interval all 60 minutes of that selected hour. Time will be displayed in 5 minute spaces.

7.4.8 Playback control panel

No.	Button	Description
1		Go to First available data
2		Forward Playback : Decrease the speed Reverse Playback : Increase the speed
3		Step Backward
4		Reverse Playback
5		Pause
6		Forward Playback
7		Step Forward
8		Forward Playback : Increase the speed Reverse Playback : Decrease the speed
9		Go to Last available data

7.4.9 Additional Control Options

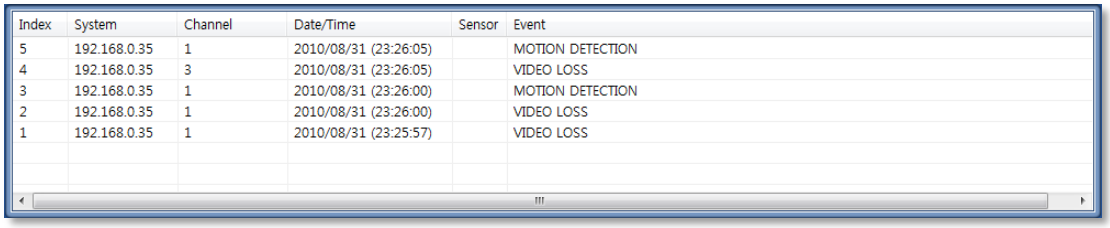
(Audio On/Off): Turn On or Off for Audio channel.

Two-way Audio : Two-Audio between ACS and DVR.

Relay: Turn On or Off for Relay.

NOTE When options are not properly setup on the DVR side, these buttons will be disabled.

7.4.10 Event List Panel



Index	System	Channel	Date/Time	Sensor	Event
5	192.168.0.35	1	2010/08/31 (23:26:05)		MOTION DETECTION
4	192.168.0.35	3	2010/08/31 (23:26:05)		VIDEO LOSS
3	192.168.0.35	1	2010/08/31 (23:26:00)		MOTION DETECTION
2	192.168.0.35	1	2010/08/31 (23:26:00)		VIDEO LOSS
1	192.168.0.35	1	2010/08/31 (23:25:57)		VIDEO LOSS

Event List Panel will display all evets related to the DVR currently connected. See section 6.6.4 Event for more information on setting up events recording on the ACS.

To start playback video from any of the events in the event planel, double-click on the item .

7.4.11 Display Channel

In Live mode, [Live] will be displayed with all white text information. Blue channel boundary.

In Search mode, [Search] will be displayed with all red text information. Red channel boundary.

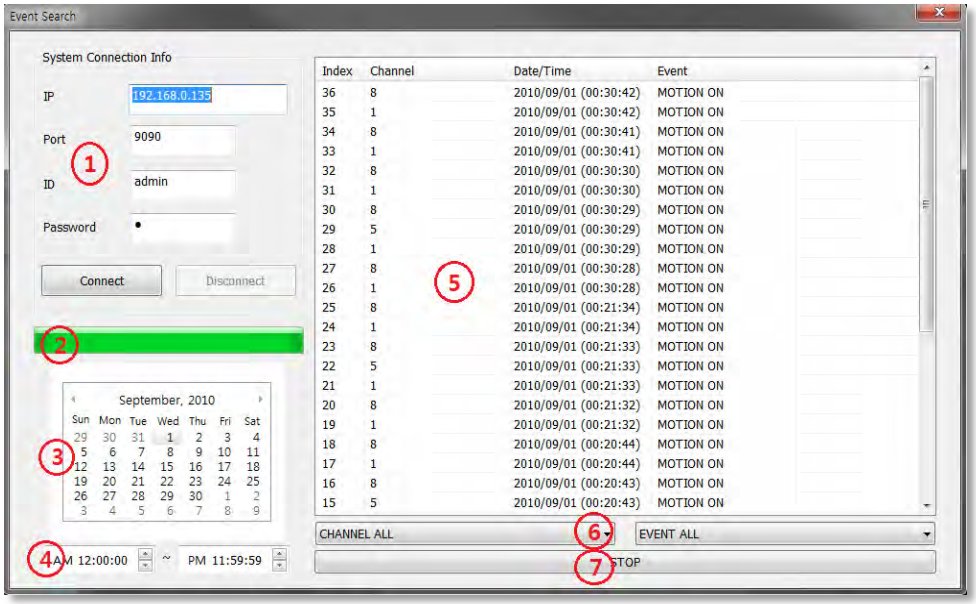
A channel selected will be indicated by a yellow fgrame around it.

7.5 Advanced Operation

7.5.1 Event Search

Right-click on a site in the site list to view the quick access menu.

Select **EVENT SEARCH** to run Event Search.

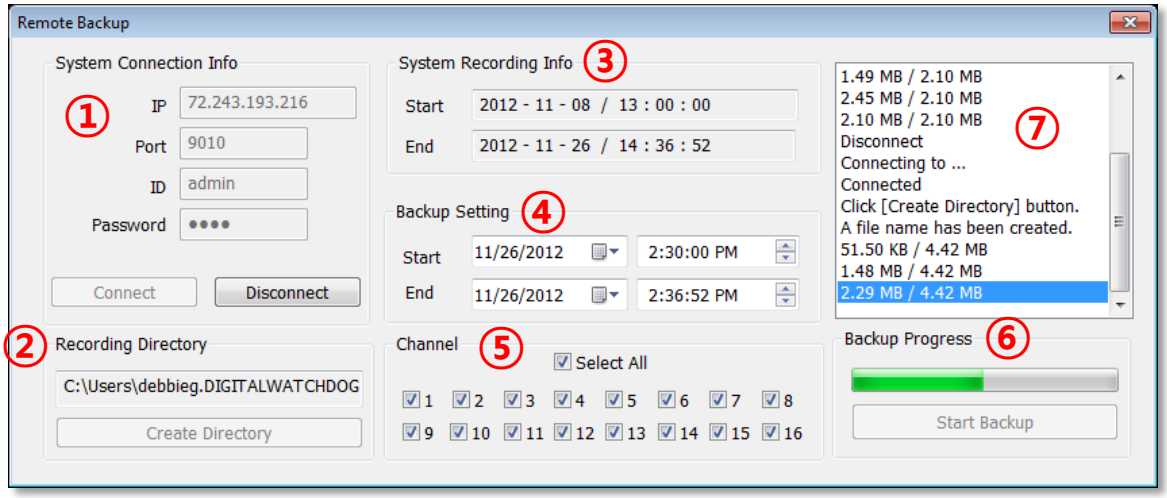


No.	Function	Description
1	System Connection Info	Input the information of Device and click ‘connect’.
2	Event Download Status	Right after connecting to Device, event information will be downloaded automatically. The download progress bar will be shown.
3	Calendar Search	If there is an event in the selected date, the date is highlighted. Select a specific date to start event search.
4	Interval Setup	Set the time (start/ end time) for event search.
5	Event List	The desired date is chosen, the event list of the desired date will be shown on the list. Press ‘Sart’
6	Channel/Event Filter	Event information can be sorted by channel number, time, or event type. To view video corresponding to a specific event, double-click on that event.
7	Start/Stop Search	Start/Stop Search button.

7.5.2 Remote Backup

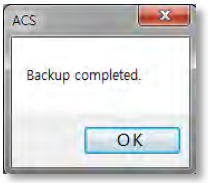
Right-click on a site in the site list to view the quick access menu.

Select **REMOTE BACKUP** to run Remote Backup.



No.	Function	Description
1	System Connection Info	Input the information of Device and press 'Connect'
2	Recording Directory	Enter the recording directory to backup. Enter a desired file name and select where the file will be saved.
3	System Recording Info	Displays the start and end time of the available recorded data in the system.
4	Backup Setting	Setup the start and end time of the data to backup.
5	Channel	Select which channels to backup.
6	Backup Progress	Backup Progress bar indicates the backup process status.
7	Backup Status Window	Displays the backup status in text message.

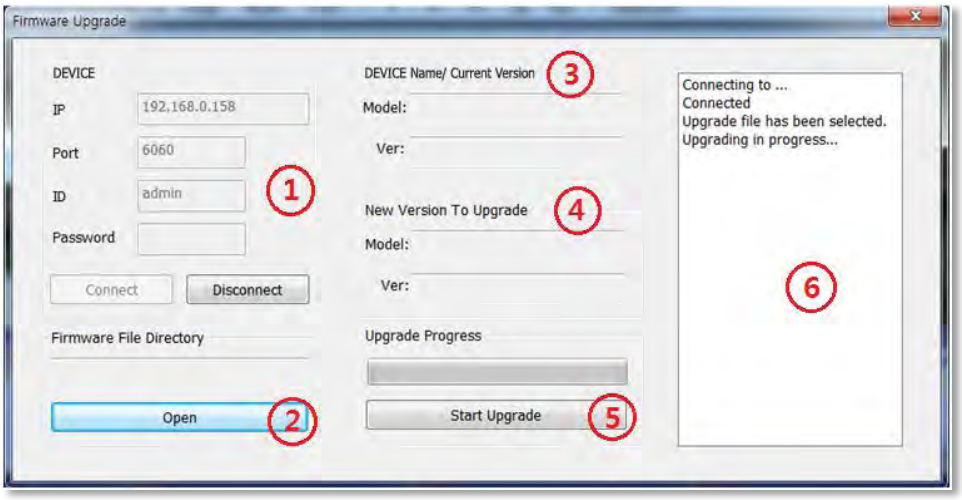
When the backup process is completed, "Backup Completed" message will appear.



7.5.3 Firmware Upgrade

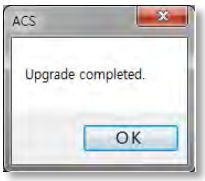
Right-click on a site in the site list to view the quick access menu.

Select **FIRMWARE UPGRADE** to run Firmware Upgrade. Firmware Upgrade allows you to update the DVR's firmwqare remotely.



No.	Function	Description
1	DEVICE Connection Info	Input the information of Device and click 'connect'.
2	Firmware File Directory	Select the firmware file directory to upgrade.
3	DEVICE Name/ Current Version	Displays the DVR's current Model and Firmware Version.
4	New Version to upgrade	Displays the new Device Model and Firmware Version.
5	Upgrade Progress	Start Upgrade and upgrade progress bar shows the upgrade progress status.
6	Upgrade Status Window	Displays the upgrade status in text message.

When the upgrade process is completed, "Upgrade Completed" message will appear.

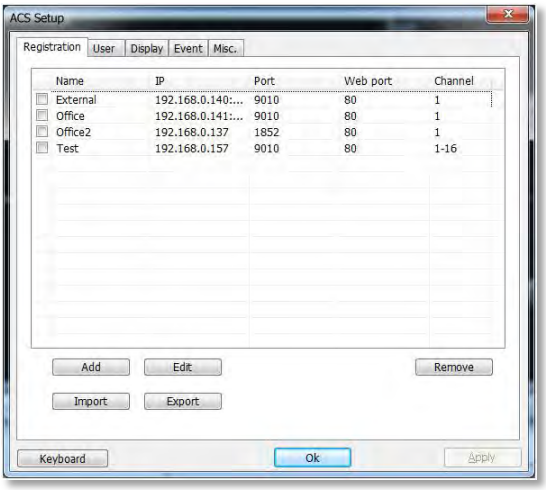


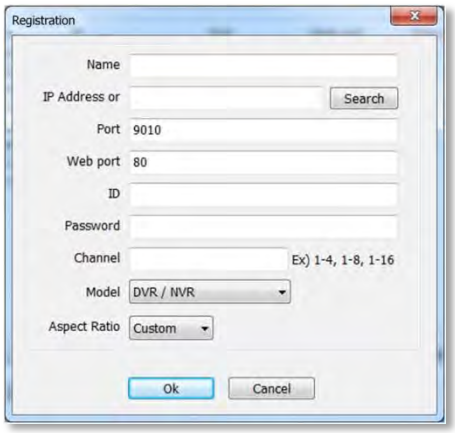
7.6 ACS Setup

The ACS Setup menu allows you to adjust the software's settings such as: Device Registration, Network, User, Display, Event and other options.

7.6.1 DVR Registration

Add, Modify, Import, Export or Remove DVRs from the site List.





1. To add a DVR, click 'Add' button, and input all required information
   If a DVR is set to UPNP, it can be automatically detected by using the 'Search' button. The DVR must be on the **same network** as the ACS to be able to be detected. Once the new DVR is added, it will automatically appear on the site panel.

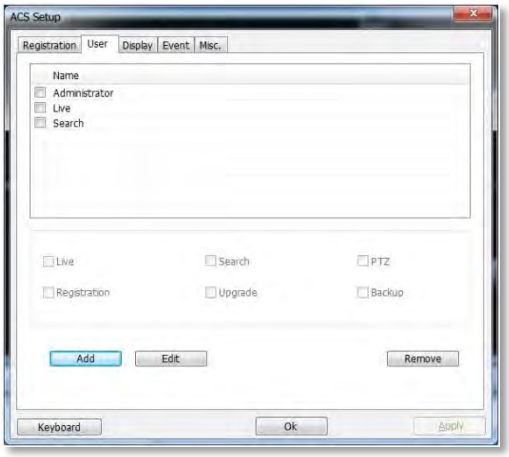
No.	Function	Description
1	Name	The name of the site.
2	IP	IP Address.
3	Search	Search the DEVICE sites in the same local network. (UPnP function)
4	Port	Port of the site. (Default: 9010)
5	Web port	Web Port of the site. (Default: 80)
6	ID	User ID of the site.
7	Password	Password of the site.
8	Channel	Number of channel of the site. For example: 16ch DEVICE: 1-16 or specifically: 1,3,5,7,9...
9	Model	Select a DEVICE or DEVICE's model name.
10	Aspect Ratio	Select the displayed Aspect Ratio. (Custom, 1:1, 4:3, 16:9)

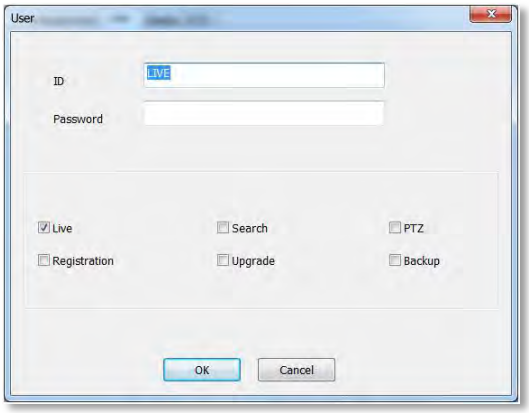
2. To modify and/ or remove a DVR's information, check the box next to the device you want to change, and click EDIT or REMOVE to make any modifications to the DVR's information or delete it from the Device List.

3. Use the 'Import' and 'Export' buttons to export settings from one DVR and import them to multiple DVRs on the list. Please note that all DVRs must have the same firmware version to be able to accept exported settings.

7.6.2 User

User authority can be changed by the Administratoruser only. “admin” is the built-in account for administrating the DVR and ACS program. (default password for the admin user is no password).



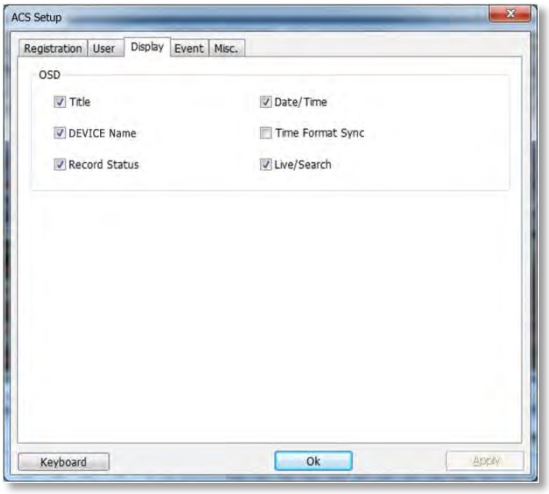


1. To edit a user’s presmissions, check the box next to the desired user and select ‘EDIT’. The User seupt page will appear. Here you can:
    a. Change the user’s ID and Password
    b. Set which permissions current user will have. Check the box next to the permissions you want to allow current user:
        i. Live Video
        ii. Search Archived Video
        iii. Registration- Add/ Edit/ Delete DVRs
        iv. Remote firmware upgrade for DVRs
        v. PTZ control
        vi. Backup video files
    c. Press OK to save changes, or cancel to exit edit mode.
2. To add a new user, press ‘ADD’ and follow a~c above.
3. To delete a user, check the box next to the desired user and select ‘REMOVE’. (administrator user cannot be modified or removed.)

7.6.3 Display

The Display setup menu allows you to modify the OSD as it appears on the ACS.

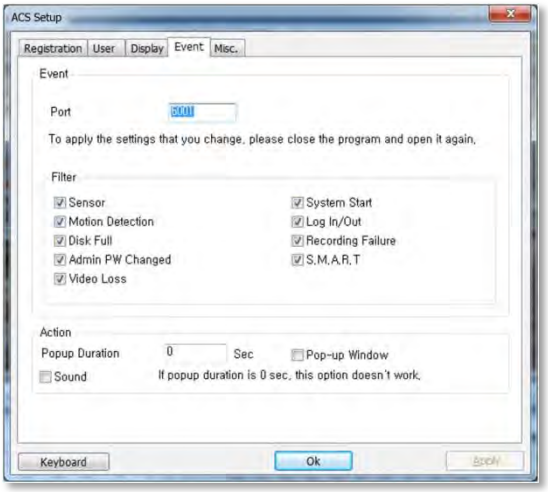
Using the check boxes, select which information will be displayed on the video displayed on the ACS software:



- **Title**: Show/ Hide the Camera's title and channel number.
- **Date/Time**: Show/ Hide the Date/Time
- **DEVICE Name**: Show/ Hide the DVR's name.
- **Time Format Sync**: Synchronize the DVR's time format to ACS.
- **Record Status**: Show/ Hide the Recording Mode for each channel.
- **Live/Search**: Show/ Hide the Live/Search indicator.

7.6.4 Event

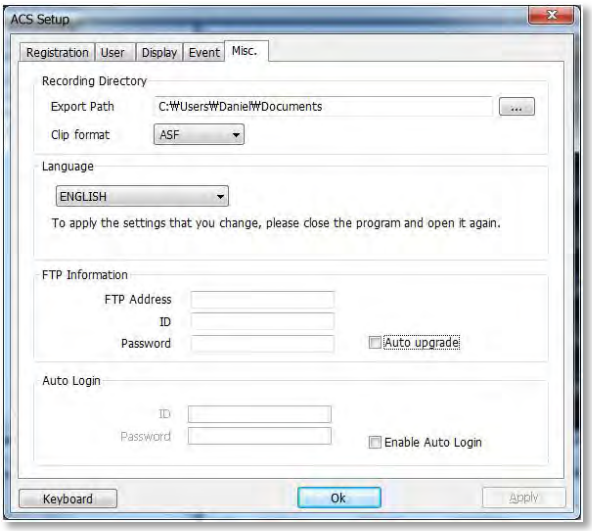
Setup the event port, event type, and popup settings for events recorded by the DVR.



No	Item	Description
1	Port	Input the same event port as the one set on the DVR's setting to receive event notification from the DVR. See section 4.4.3 Notifications for more information.
2	Filter	Select the type of event to receive.
3	Action	Setup the popup duration and enable beep sound on the ACS side.

7.6.5 Misc.

Setup the Recording Directory, Language, Auto Upgrade, and Auto Login options.



No.	Function	Description
1	Recording Directory	Select the recording directory to save images (saved as .jpg) and video clips (saved as .ASF or .MP4).
2	Language	Select a desired language from the drop-down options.
3	FTP Information	Enter the FTP's information. Once the FTP setup is done,the ACS will automatically detect the latest DVR firmware is availanle in the FTP and will start remotely upgrading the DVRs in its device list.
4	Auto Login	If 'Auto Login' is enabled, after inputting ID and Password, next time when you login, you don't need to type in the ID and Password again.

Chapter 4

MAC ACS CLIENT SOFTWARE USER MANUAL

8 MAC ACS USER GUIDE

8.1 System Requirement

Recommended System Requirement

OS	Mac OS X 10.6(snow leopard)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

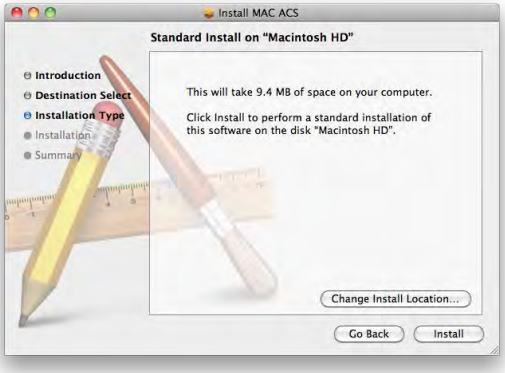
Minimum System Requirement.

OS	Mac OS X 10.5(Leopard)
CPU	Built-in Intel CPU MAC
VGA	64MB
RAM	512MB
HDD	20 MB Free space

8.2 Install

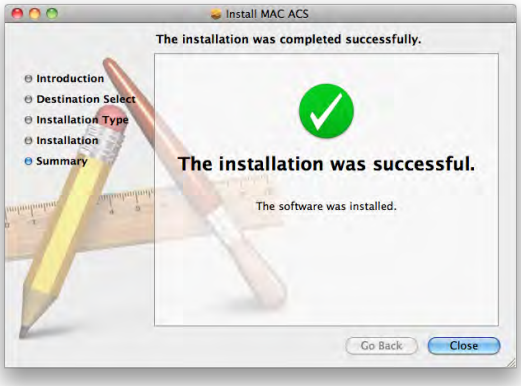
a. Run MAC ACS.pkg installed on the CD. A Setup Menu will appear as below. Follow the installation instructions to complete the installation.

b. Select the directory where you would like the ACS software to be installed to. Press the [Continue] button to move to the next screen.



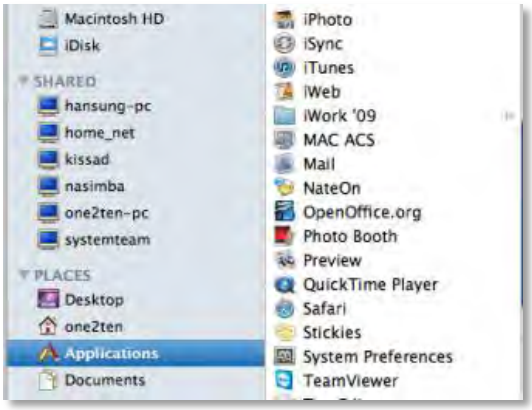
c. Press the [Install] button to Install MAC ACS.

d. Enter the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.

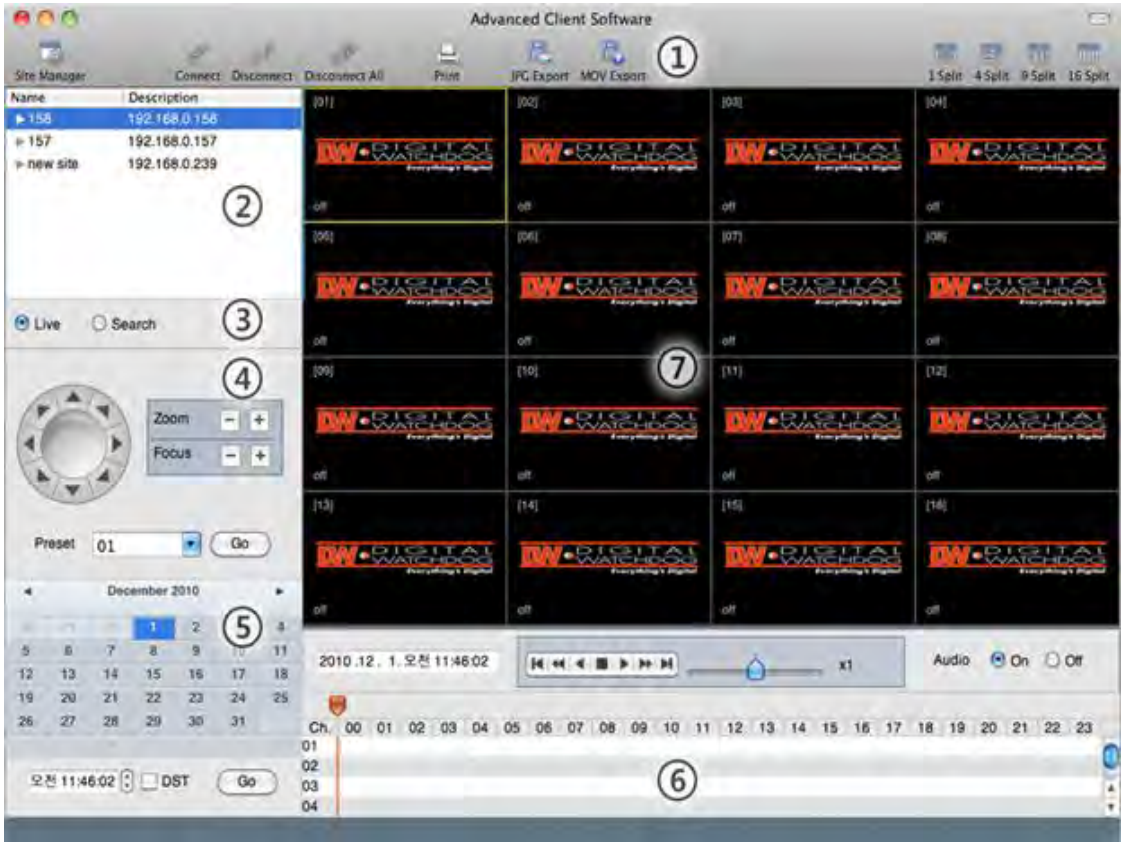


8.3 Basic Operation

To run the ACS on your MAC, click on ACS icon in Application Folder.

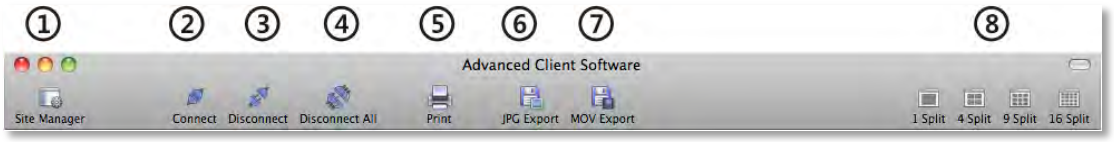


8.3.1 Screen Layout



No.	Item	Description
1	Main Toolbar	Device Management, Connect & Disconnect, Print Image, Export Image or Video, and Dicpaly Options.
2	DVR List Panel	Registered DVR Site List. Possible to connect by Dragging
3	Live/Search	Click Live or Search mode to connect the panel
4	PTZ Panel	PTZ Camera Control in Live mode
5	Calendar Panel	Search by Time and Date
6	Search Panel	Recorded information is displaed in Search. Control Playback speed and Audio.
7	Display Panel	Displays video from the selected cameras, in live or playback modes.

8.3.2 Main Toolbar



No.	Button	Description
1	Site Manager	Register or Delete DVRs
2	Connect	Connect to a selected site from the DVR list panel (Select Live/ Search to set the connection mode)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels
5	Print	Print image
6	JPG Export	Save a selected image to the desktop as JPEG format
7	Movie Export	Save a selected video clip to the desktop as mov format
8	Split	Single Channel, 4-Split, 9-Split, 16-Split

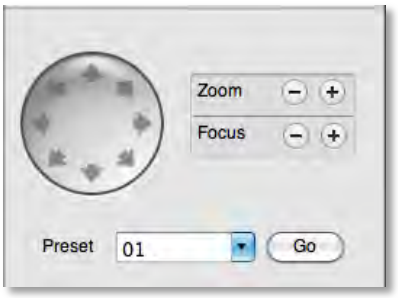
8.3.3 Site List Panel

The site list panel shows all registered DVRs. To connect a site, Drag & Drop it to the display area.

Before connecting to a site, select Live or Search from the connection mode panel.

8.3.4 PTZ Panel

PTZ camera controls in Live Mode. PTZ Camera can control if the channel is activated on PTZ operation.



No.	Button	Description
1	Navigation Key	PTZ camera can be moved in 8 directions.
2	Zoom	Optical Zoom In and Out.
3	Focus	Adjust the focus of PTZ camera.
4	Preset	Select the preset location.
5	Go	Go to the preset location.

8.3.5 Calendar Panel

The calendar is enabled only in Search mode.

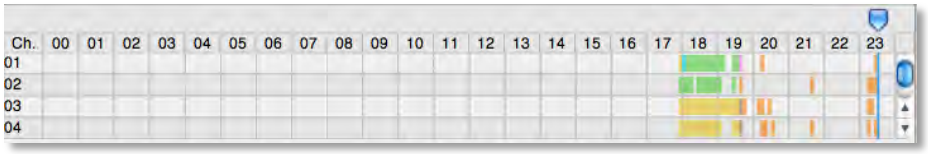
Days with available recorded data will display a small dot under the day's date in the calendar. The selected day will be highlighted in Blue. When you click on a recorded date on the search mode, the playback time will automatically update.

Press the Go button to start playback from the selected date and time.

If DST is enabled, the earlier one-hour overlapped video will be shown first.

8.3.6 Search Panel

The Search panel is enabled only in Search mode.



- The Search panel shows the record information for each channel.

- Each color represents a different recording mode:

No Record	Background Color
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

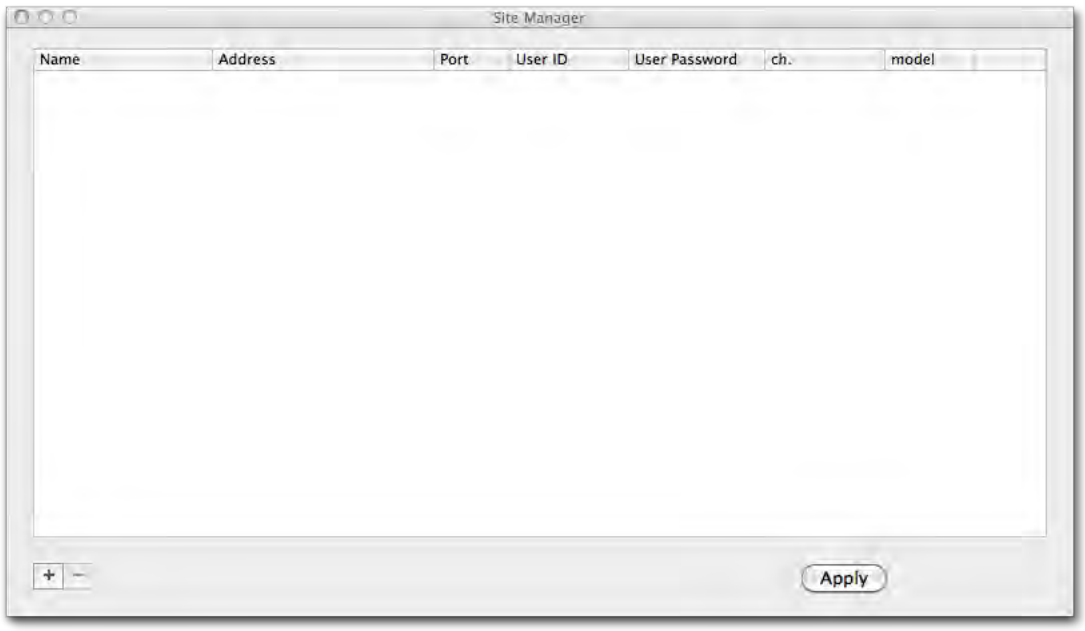
- Click the time or move the time to the time you want to playback in the search panel.

8.3.7 Playback Panel

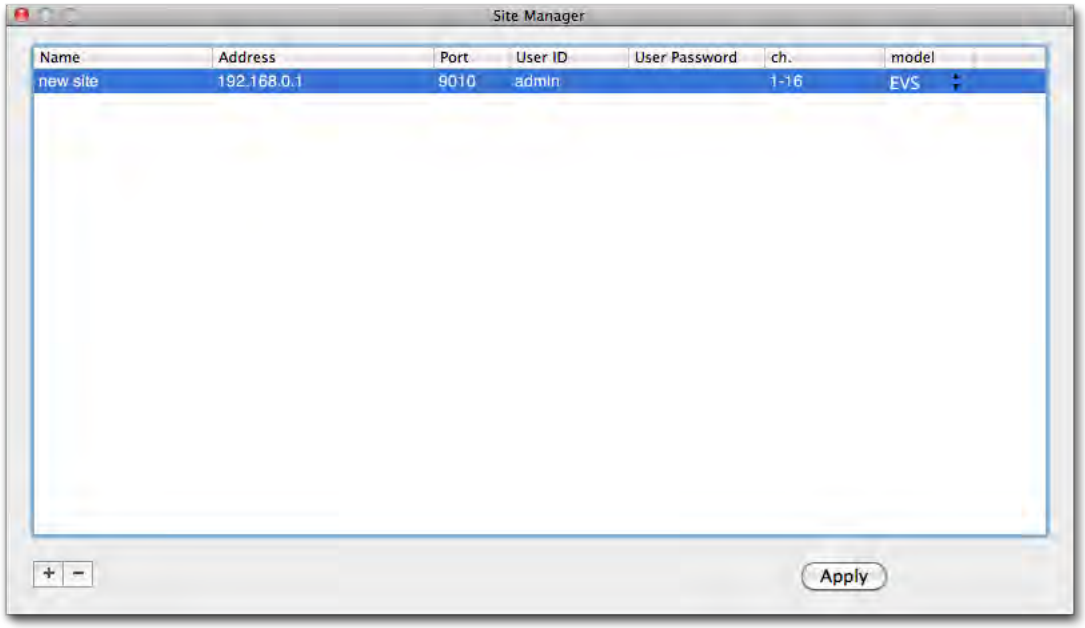
No	Button	Description
1		Go to first
2		Forward Playback : Decrease the Speed Reverse Playback : Increase the Speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed Reverse Playback : Decrease the speed
7		Go 10 seconds before the end of the data.

8.3.8 Site Manager

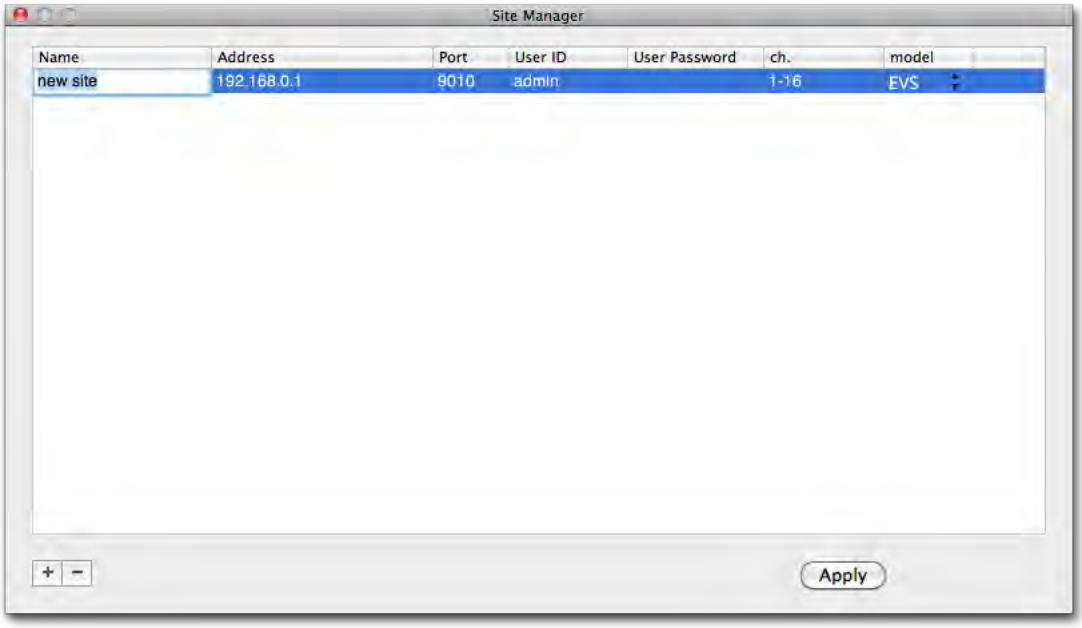
Add, Modify, or Remove DVR site information.



Press add a DVR entry. The system will fill out the information automatically.



To change the default values, double-click on the item. For example, double-click " New Site " to change the name.



After all the necessary modifications have been made, press the Apply button.

No.	Function	Description
1	Name	Enter a name for the site
2	IP	Enter the IP of the site to be registered
3	Port	Enter the Port number of the site to be registered (Default 9010)
4	User ID	Enter the ID of the DVR to be connected
5	User Password	Enter the PW of the DVR to be connected
6	Ch.	Enter the channels of the site to be registered. For example: 16 Ch DVR: 1-16, individual cameras 1,3,5,7,9...
7	Model	Select Model name of the DVR to be registered

If you want to delete the registered DVR information, Select the DVR and click −

After modifications have been made, press Apply

Chapter 5

FACESTAMP SOFTWARE USER MANUAL

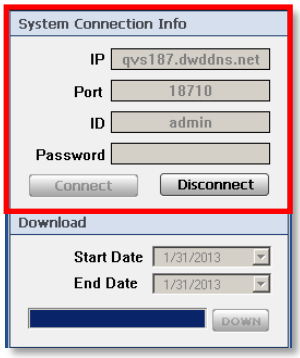
9 FACE STAMP SOFTWARE

Independent Face Stamp SW is supplied in the DVR's accessory CD to manage the face stamp events search, various reports, user management and work hour calculation.

9.1 Face Stamp Software Set-up

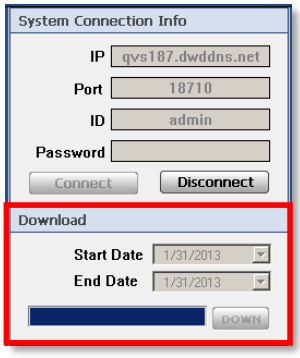
9.1.1 System Connection Info

In order to operate this S/W after installation, access the target VMAX960H or VMAX960H Flex. Input the DVR's IP address, Port No, DVR login ID and pass word to connect. See section 4.4 Network for more information.



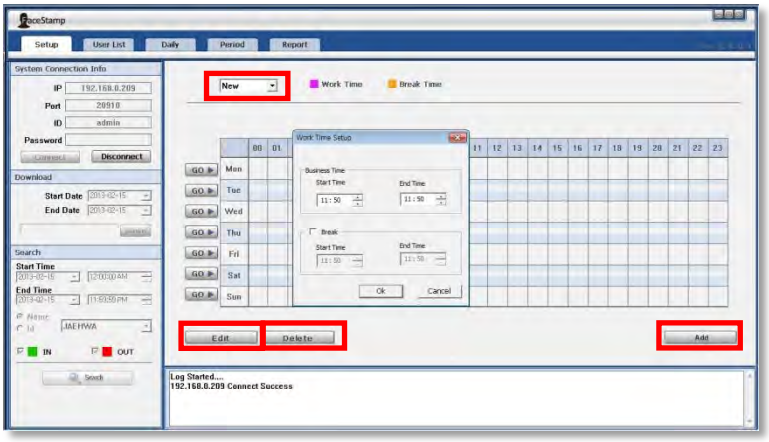
9.1.2 Download

After connection, set the start and end time. This time frame will indicate the start and end time of the data (Facestamp events) downloaded from the DVR to the Facestamp software. Press the 'DOWN' button to start downloading. The download process will be indicated by the blue progress bar. When download is complete, all selected events will display in the table section.



9.1.3 Work Time Set-up

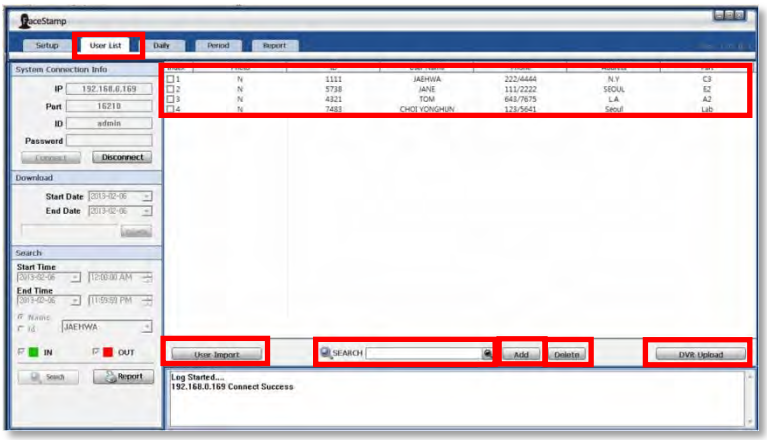
Administrator can set-up the company's work time by day when Go ▶ button is pressed, start & end time of work and break. After setting of work time, click Add button to save this list. Administrator can edit and delete the pre-saved list in drop-down list.



9.1.4 User List

When Face Stamp data is downloaded from VAMX960H / VMAX960H flex, registered user list in DVR will be automatically displayed. User list and IDs can be added and deleted in Face Stamp S/W. Once revisions are made to the USER and ID lists, it can be uploaded directly to the DVR for convenient management of multiple users.

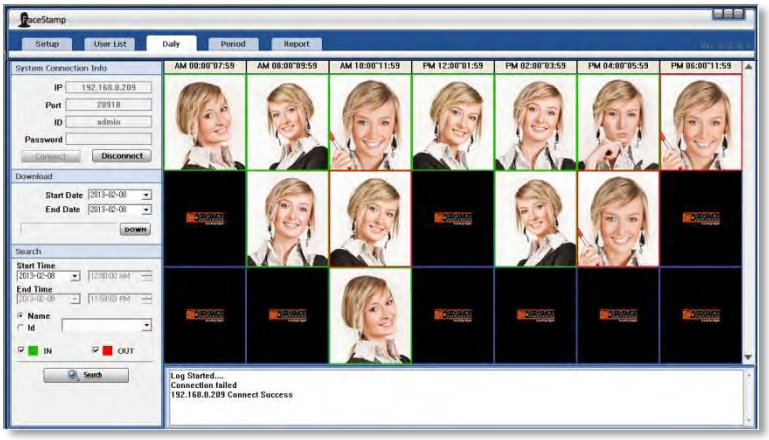
NOTE User list should be downloaded from DVR first, then modified in the software accordingly. When user list is uploaded from Face Stamp S/W, it will overwrite any previously saved date in the DVR.



9.1.5 Daily Search

Set desired date to search Face Stamp events. You may also filter the results by selecting other conditions such as name, id, or in and out. Click Search to view the search results.

Face Stamp events will be displayed with still image by time. When an image is double-clicked, up to three (3) seconds of pre-event recording video will be played back.

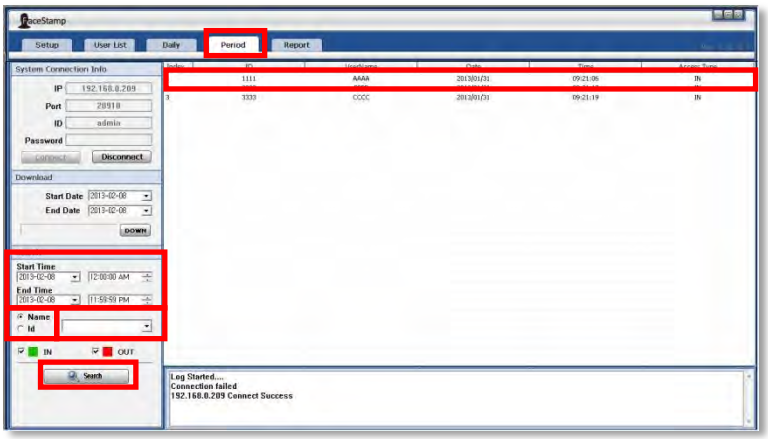


9.1.6 Period Search

You can also perform search on longer periods of time. This is helpful to maintaining an accurate payroll system and deter any fraudulent time reports.

Set start & end time to search Face Stamp events during desired period You may also filter the results by selecting other conditions such as name, id, or in and out. Click Search to view the search results.

The events list will be displayed and Pre-event recording video can be played back when double-clicking on an event.



9.1.7 Report

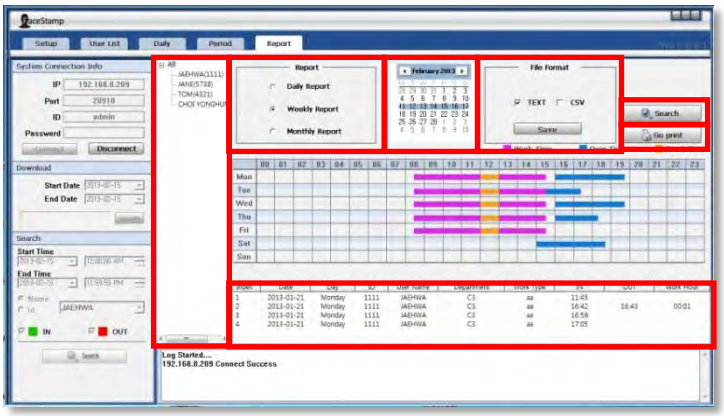
Face Stamp SW supplies daily, weekly, and monthly reports by face stamp event as well as work hours calculation. In the user tree, you can select a specific user to see individual reports. If you select the root group, all users will be displayed in the reports.

9.1.8 Daily & Weekly Report

Select user and daily or weekly repot. Target date/week can be selected in the calendar and it should be within the predefined downloaded period.

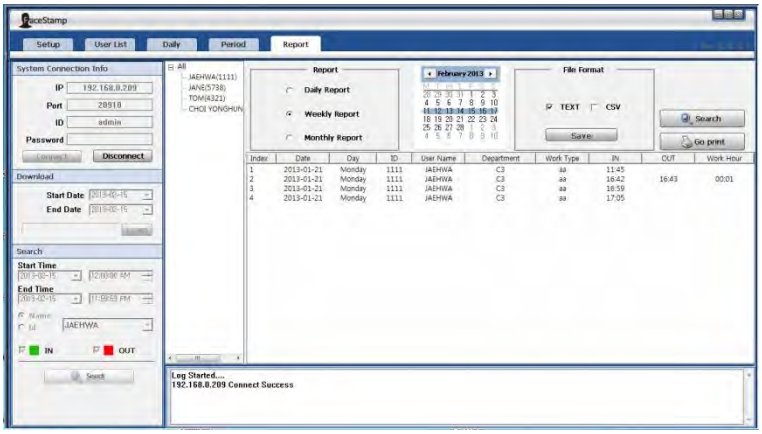
Press search to get locate all proper events during the desired period.

A graphical report will be displayed by work time set-up, with the events list at the bottom of the screen. You can save or print the report for your personal records.



9.1.9 Monthly Report

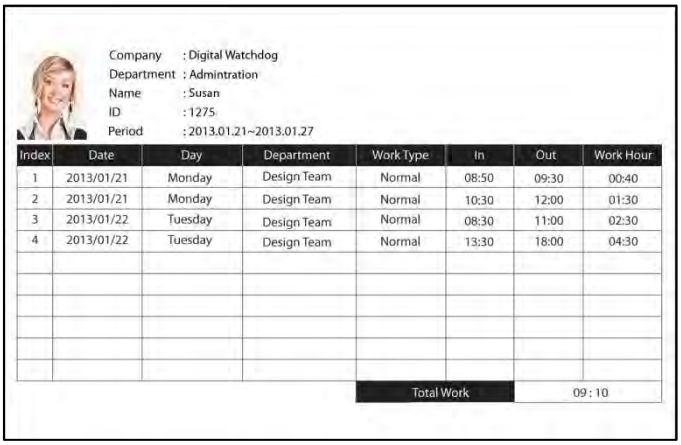
Monthly Report will display events lists only.



9.1.10 Print Report

Printed report will supply user information. Picture is available when it is uploaded in user list.

Report will show all record of In/out Face Stamp event and calculated work hours.



Company : Digital Watchdog
Department : Adminstration
Name : Susan
ID : 1275
Period : 2013.01.21~2013.01.27

Index	Date	Day	Department	Work Type	In	Out	Work Hour
1	2013/01/21	Monday	Design Team	Normal	08:50	09:30	00:40
2	2013/01/21	Monday	Design Team	Normal	10:30	12:00	01:30
3	2013/01/22	Tuesday	Design Team	Normal	08:30	11:00	02:30
4	2013/01/22	Tuesday	Design Team	Normal	13:30	18:00	04:30
				Total Work		09 : 10	

Chapter 5

MOBILE PHONE SOFTWARE USER MANUAL

10 MOBILE PHONE SOFTWARE USER GUIDE

10.1 iPhone application software

1 Installation DW VMAX

2 3 4 5 6 7 8 9

3 Now you can see the detail information about the 'DW VMAX' application.
Click 'FREE' button then it will change to 'INSTALL' button. Click 'INSTALL' button to proceed.

4 When mobile application is installed successfully, you will see the DW VMAX icon on your iPhone and the loading page will be also seen before you connect to the mobile application after you click the icon.

1 2 How to connect and setup 3 4 5 6 7 8 9

1 Press "+" button to add desired device.

2 Fill in the new site information correctly and press "Save" button to save. For the model option, please choose "DW VMAX".

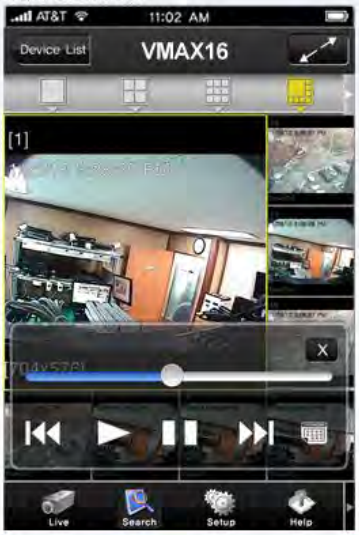
1 2 **3 How to connect and view** 4 5 6 7 8 9

1 At first, select the desired device.
To see live view, press the live icon on the bottom of the screen.

2 User will have live screen view and can also select the desire layout.

1 2 3 **4 How to search** 5 6 7 8 9

1 Search function is available up to 16 channels. In order to search date of a channel, touch the screen of live view and touch "Search" tab located on bottom of the screen. Click channel icon to view another channel in search mode.



1 2 3 4 **5 Drag and Switch Function / Layout** 6 7 8 9

1 Drag / Switch Function : User can use Drag / Switch function to switch the screens.
User can see bigger picture of desired camera view.

2 Layout Function : User can select the desire layout.

6 How to control PTZ control

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by + icon and – icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

Pan/Tilt

Zoom In/Zoom Out

Preset

7 Capture / 2 way audio function

1 User can use Capture function by pressing Capture icon on the bottom of the screen.

2 By using mobile application, 2 way audio is available. On the bottom of the screen, there are Mic and Speaker icons.

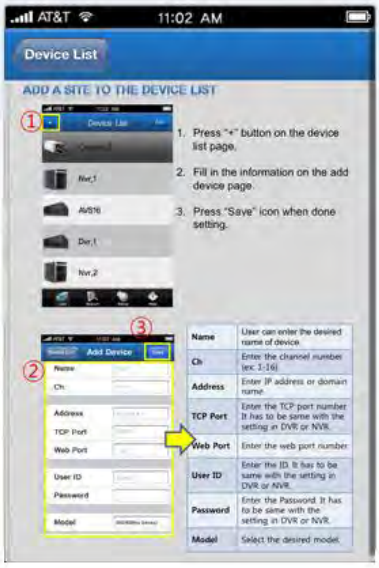
1 2 3 4 5 6 7 **8 Setup / Display Camera Information** 9

1 User can setup on the "Remote Setup" page. When you are done setting, press "Done" button.

2 Display Camera information : Camera name, Place, Date and Time.

1 2 3 4 5 6 7 8 **9 Help**

1 Help menu can be selected in bottom incon menu.



10.2 Android application software

1 How to install DW VMAX

2 3 4 5 6 7 8 9

5 You will see a detailed information about the 'DW MAX' application. Press 'Install' button to install it.

DW VMAX
Digital Watchdog
FREE
My review
Rate it!
100-500 downloads
2 ratings
This application program allows you to connect to your 'H.264 DVR' and see live video images remotely from the site where your DVR is located.
Also, you can control a PTZ and Preset function
- Up to 4 split channel live display
- 1ch PTZ control and Preset function (VMAX480 only)
- Multi-Site Management
Version 2.1 96.02KB
Install

6 Now you can see the 'DW VMAX' icon after proper installation.
Splash image will be pop-up by activation.

2 How to connect and setup

1 Press "+" button to add desired device then set-up menu will be pop-up automatically.

2 Fill in the new site information correctly and press "Save" button to save after selecting correct device.

1 2 **3 How to connect and view** 4 5 6 7 8 9

1 In order to connect target device, press icon in right to activate then select live icon in bottom.

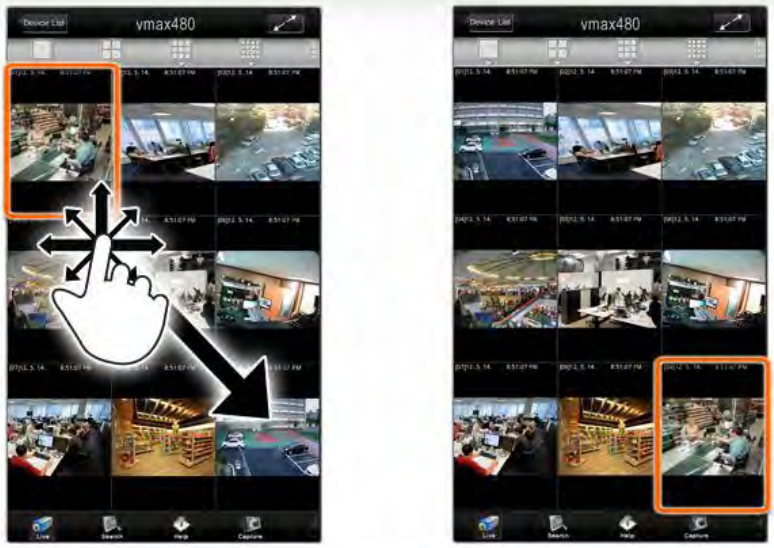
2 User is able to get the live video and display mode can be selected in defined layout icons in top.

1 2 3 **4 How to search** 5 6 7 8 9

1 Select Search icon after connecting the target device or press Search icon in live screen. Up to 16 channels can be searched simultaneously. Time and date search is available by pressing calendar in control box and user can adjust it.

5 Drag and switch Function / Layout

1 Drag / Switch : User can switching video position. Please drag the selected channel then drop it into desired window to switch.



2 Display Layout : Various display layout can be selected in icons in top.

6 How to control PTZ control

1 A single channel PTZ is simply controlled by using touch screen. First, PTZ control is available when selected channel is set for PTZ camera and PTZ control is available in full screen mode. PTZ camera can be moved into desired position by pressing directional arrow icons. Zoom In and Out can be controlled by "+" icon and "-" icon in center. In order to move the PTZ camera into desired position by Preset, user can selected pre-saved preset no in Preset Tab menu.

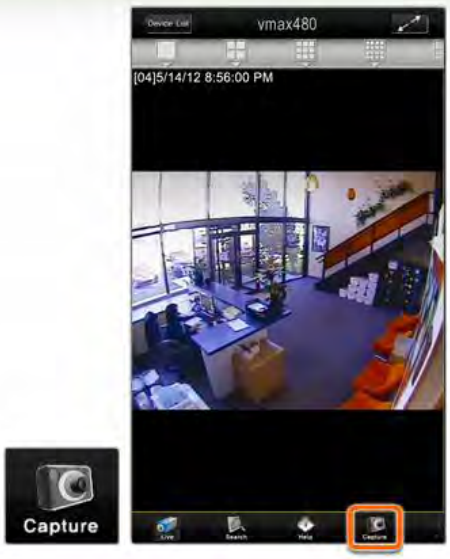
Pan / Tilt

Zoom In / Zoom Out

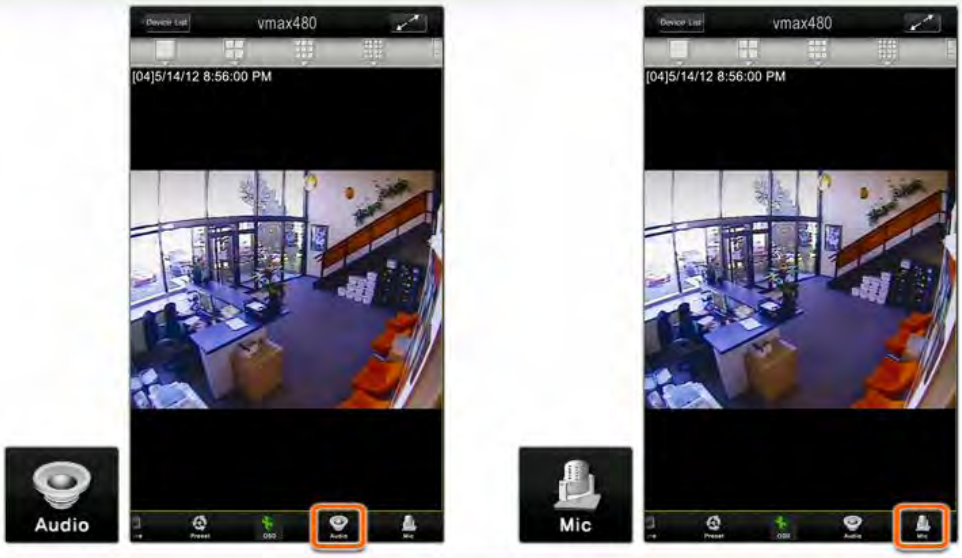
Preset

7 Capture / 2 way audio function

1 Snap shot can be captured through capture icon in bottom menu.



2 2 way audio can be on/off by selecting speaker or microphone icon in bottom menu.



1 2 3 4 5 6 7 **8 Display Camera Information** 9

1 OSD can be on / off and it displays camera title & time & date information.

1 2 3 4 5 6 7 8 **9 Help**

1 Help menu can be selected in bottom incon menu.

2 Custom Fit(Strech the video to fit for window) / Full Screen Mode.

10.3 Using WAP+3G Connection

1 In case of using WAP, 3G Connection

1 First, you need to check out 'WEB PORT' of your DVR, because WAP Base Connection method is mainly based on the Mobile Web Service through the 'WEB PORT'. [Default setting is 80]

2 Type your connection URL in the Internet Browser in your Blackberry.
The URL type should be one of the following two URL types.

http://Your_IP_Information/mobile/ [OR] http://Your_IP_Information/mobile/index.html

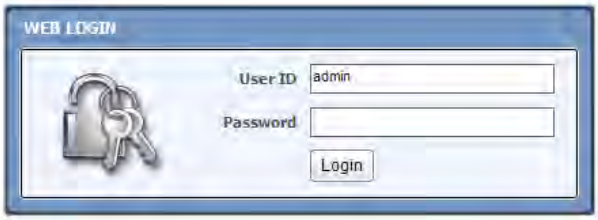
i.e) http://72.243.193.204/mobile/ [OR] http://72.243.193.204/mobile/index.html

Note:
- You may need to input 'index.html' at the end of your URL depending on your Web Browser Property. Therefore, please try both URL types.

3 If the 'WEB PORT' of your DVR is not '80', but other port number, for example, '8088', then you need to type '8088' at the end of the URL.

i.e) http://72.243.193.204:8088/mobile/ [OR] http://72.243.193.204:8088/mobile/index.html

4 When the connection is successful, you can see the below windows.
Please type in User ID and Password. The default setting is admin(User ID) and No password like below.



1 In case of using WAP, 3G Connection

Note:

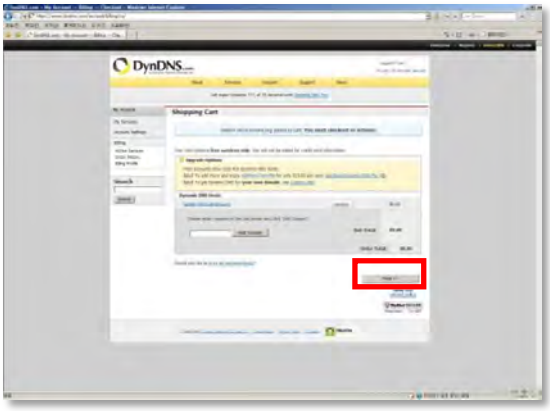
- When connection established successfully, the JPEG image will be refreshing 1 image per about 5 seconds automatically.

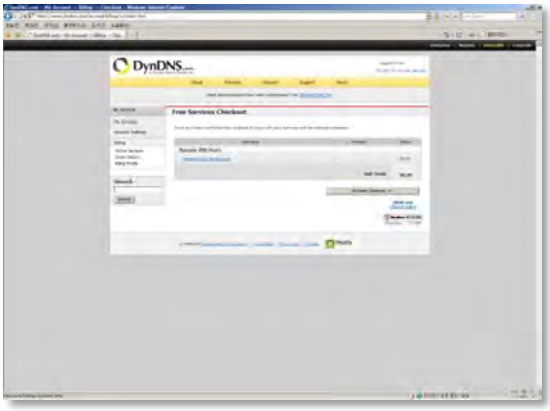
APPENDIX : DYNDNS SITE REGISTRATION

1) Go to www.dyndns.com
2) Log in to the Site after registration

3) Click " Add Hostname" button on "Host Services"
4) Enter the IP address and Host name on the blank

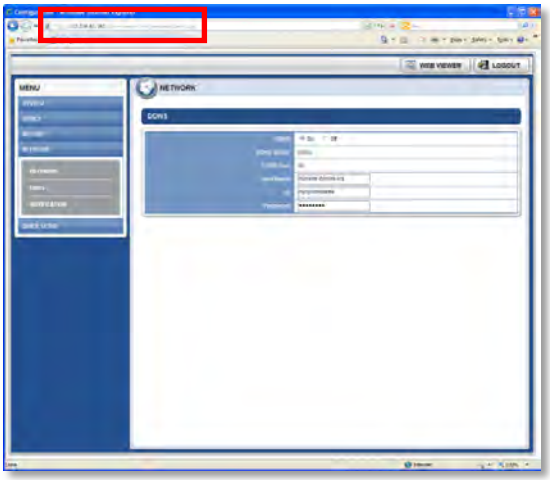
5) Click "NEXT" Button
6) Click "Activate Services" button

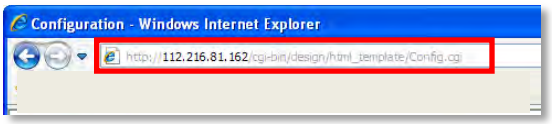




7) Confirm the domain name and IP address

8) Check the connection status





- **Tip**

1. It may take a little time to be completely done for DNS deployment after changed sub domain.
2. Please recheck DVR's IP address registered in the My Service Menu, if you can't access DVR using dyndns.
3. If you are using dyndns to change the IP address for the DVR to the update request, dyndns update by the circumstances that may be late.
4. Dyndns domain is registered by the policy. If the update occurs frequently, it may be blocking.
   Please recheck DVR's service status registered in the My Service Menu, if you don't access dyndns.
5. If you don't access dyndns for a long time, domain will be deleted automatically.
   To prevent this, please access it regularly, or you will have to pay for it again.
   For more information, please contact to dyndns directly

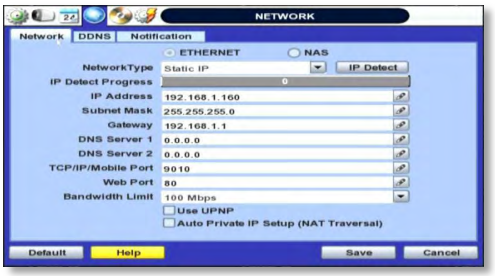
APPENDIX : NETWORK SETUP FOR EXTERNAL USAGE

Please note: The following information are general guidelines. These may vary by networkand router specifications. Contact your installer or ISP for additional information.

If you are not connecting to your DVR from within the same network, you will have to perform port forwarding on your router to be able to access the DVR externally, via the internet.

1. In the [Network] menu set "Network Type" to [Dynamic IP] and click [IP DETECT]. The system will automatically detect the correct settings for the network where the DVR is installed.

2. Once the system generates all the information based on your network requirements, change the Network Type to Static and save all the changes as static.
   A static IP address will not be changed by the network. Contact your Internet Service Provider or Network Administrator for additional information and to obtain a static IP address from them.



3. Some internet service providers block port 80 in their customer's routers. It is recommended to change the web port number to 81 or 82.

4. Access your router by entering its external IP address in your web browser. This information can be found by running an ipconfig command on your computer's Command Prompt. The router's external IP address is the GATEWAY address.

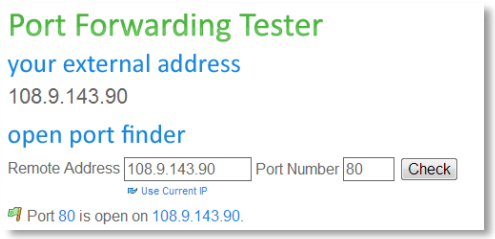
5. Check the DHCP settings in your router and setup the DVR for external connections by performing port forwarding. It is highly recommended that you contact your Network Administrator for more information and proper handeling of your router. Port forwarding will tell the router that all data received via those specific ports, will be redirected to the DVR. For the VMAX960H, you will need to port forward the two following ports:

   a. Mobile Port: 9010 (Default)

   b. Web Port: 81 or 82 (Default was 80)

6. Visit www.portforward.com for additional information on performing port forwarding on specific router models.

7. Visit www.yougetsignal.com to test whether the ports have been properly opened. Please allow up to five (5) minutes for the router to update.



8. Once the router settings have been configured correctly, open an internet explorer page and enter your router's external IP address:DVR's port number (Example: 72.243.193.215:81).

9. You can also connect to the DVR using Google Chrome by installing the 'IE Tab' add-on

APPENDIX : SPECIFICATION

MODEL		Vmax960-8	Vmax960-16
Photo			
Compression Algorithm		H.264	
HDD Interface		4EA X SATA I / II / III	
OS		Embedded Linux	
Video	Input	8 BNC / 16 BNC	
	Looping	8 or 16 x Loop out ports (BNC)	
Video Mode		NTSC / PAL Auto Detection	
Display Speed (NTSC/ PAL)		480 / 400 fps @ 960H	
Screen Split		1, 4, 9, CAMEO (1ch)	1, 4, 9, 16, CAMEO (1ch)
Video-Out	Monitor	3ea x Main Monitor (HDMI , Composite, VGA) 1 x Digital Spot out (Full, 4, 9, 16 Mode)	
	Display Resolution	800x600, 1024x768, 1280x1024, 1920I, 1920P	
Recording Speed (NTSC/PAL)	480x240 / 288	240 / 200 fps	480 / 400 fps
	960x240 / 288	240 / 200 fps	480 / 400 fps
	960x480 / 576	240 / 200 fps	480 / 400 fps
Recording Resolution		NTSC : 480x240, 960x240, 960x480 PAL : 480x288, 960x288, 960x576	
Recording Modes		Time-Lapse, Event, Pre-Event, Post-Event, Instant(Panic) Record	
Playback & Search	Speed	x1, x2, x4, x8, x16, x32	
	Function	1, 4, 9ch (Multi-Channel Playback)	1, 4, 9 & 16ch (Multi-Channel Playback)
		Date/Time, Record Table, Calendar, Event preview, Bookmark, Play from Search, System Log, Cameo Search	
Audio Input / Output/ MIC		In 8,16 (RCA) / Out 2 (RCA) / 1 x MIC	
Alarm Input / Relay Output		8 x In / 2 x Relay Out	16 x In / 4 x Realy Out
P/T/Z Control and Port		Virtual Joy-Stick control on screen (by mouse)	
		RS485 Port 2EA (PTZ, Keyboard Controller)	RS485 Port 2EA(PTZ, Keyboard Controller, 1 x D-Sub 9pin)
LAN		1x10/ 100Mbps Ethernet (NAS) / 1x10/ 100/ 1000Mbps Gigabit Ethernet	

MODEL		Vmax960-8	Vmax960-16
Network Transmission	Function	240/192 fps @ 960*480(576), 480/400 fps @480*240(288)	
		Video Dual-Stream (Local Recording & Network Transmission)	
		Live Monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification with JPEG, Remote System Reboot by IE	
Mobile Device support		iPhone, iPad, Backberry, Android, 3G mobile	
Remote PTZ Control		Pan / Tilt / Zoom / Focus / Iris	
Long Reach Video Equalizer		4Ch up to 900Meter (3,000ft)	
Remote Management	Software	ACS Client S/W & CMS	
	Web (IE)	Live Monitoring, Playback & System Configuration	
Backup Device	Internal	Bulti-In DVD (Optional)	
	External	Local Backup by USB Memory Stick(2ea), Network Backup by CMS, NAS, & E-SATA Support	
Advanced Functions		Long Reach Video Amplifier (Built-in 4Channel) Multi-Language, System Upgrade by USB & Network, Help menu on Major Function, Call Monitor Configuration, Import & Export, & Instant File Backup Warning Alarm for System Over-Temperature	
System Operation		IR Remote Controller, USB Mouse, Front Keys	
Power		12V x 9A D/C	
Storage Temperature and Humidity		-20~60°C / 20~95% RH	
Operating Temperatureand Humidity		5~40°C / 20~80% RH	
Certification		CE & FCC & MIC & WEEE, RoHS	

NOTE The specifications are subject to change without notice